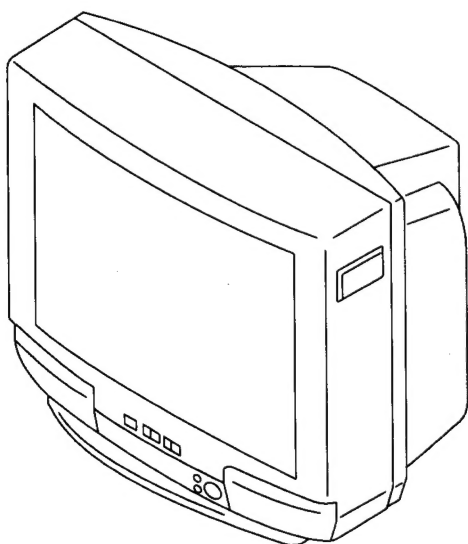


# KV-T25L1/T25MF1/T25MN1

# KV-T25MN11/T25SF1/T25SF11

RM-870

## SERVICE MANUAL



### *ME Model*

KV-T25L1 Chassis No. SCC-H45E-A

KV-T25MF1 Chassis No. SCC-H45B-A

KV-T25MN11 Chassis No. SCC-H45F-A

### *Thailand Model*

KV-T25MF1 Chassis No. SCC-H85A-A

### *Ausutralian Model*

KV-T25SF1 Chassis No. SCC-H84A-A

### *Newzealand Model*

KV-T25SF11 Chassis No. SCC-H86A-A

### *Hongkong Model*

KV-T25MN1 Chassis No. SCC-H72B-A

## BG-1S CHASSIS

### MODEL OF THE SAME SERIES

KV-T25L1/T25MF1/T25MN1	
KV-T25MN11/T25SF1/T25SF11	



TRINITRON® COLOR TV  
**SONY®**

## SPECIFICATIONS


		Note
<b>Power requirements</b>	110-240 V AC, 50/60 Hz	
<b>Power consumption (W)</b>	Indicated on the rear of the TV	
<b>Television system</b>	B/G, I, D/K, M	KV-T25MF1/T25MN11
	B/G	KV-T25L1/T25SF1/T25SF11
<b>Color system</b>	PAL, PAL60, SECAM, NTSC4.43, NTSC3.58	KV-T25MF1/T25MN11
	PAL, PAL60, SECAM, NTSC4.43	KV-T25L1
	PAL, PAL60, NTSC4.43, NTSC3.58	KV-T25SF1/T25SF11
<b>Stereo system</b>	NICAM Stereo B/G, I; A2 Stereo (German) B/G	KV-T25MN11 only
<b>Channel coverage</b>		
<b>B/G</b>	VHF: E2 to E12/UHF: E21 to E69/CATV: S01 to S03, S1 to S41	KV-T25L1/T25MF1/T25MN11
	VHF: 0 to 12, 5A, 9A/UHF: 28 to 69/CATV: S01 to S03, S1 to S41	KV-T25SF1
	VHF: 1 to 11/UHF: 21 to 69/CATV: S01 to S03, S1 to S41	KV-T25SF11
<b>I</b>	UHF: B21 to B68/CATV: S01 to S03, S1 to S41	
<b>D/K</b>	VHF: C1 to C12, R1 to R12/UHF: C13 to C57, R21 to R60/ CATV: S01 to S03, S1 to S41, Z1 to Z39	
<b>M</b>	VHF: A2 to A13/UHF: A14 to A79/ CATV: A-8 to A-2, A to W+4, W+6 to W+84	
<b>Audio output (speaker)</b>	5W × 2	
<b>Inputs</b>	Antenna: 75 ohms	
	VIDEO INPUT jacks: phono jacks Video: 1 Vp-p, 75 ohms Audio: 500 mVrms, high impedance	
<b>Outputs</b>	Headphone jack: mini jack	
	Earphone jack: mini jack	KV-T25L1 only
	MONITOR OUT jacks: phono jacks Video: 1 Vp-p, 75 ohms Audio: 500 mVrms	
<b>Picture tube</b>	25 in.	
<b>Tube size (cm)</b>	64	Measured diagonally
<b>Screen size (cm)</b>	60	Measured diagonally
<b>Dimensions (w/h/d, mm)</b>	613 × 542 × 472	
<b>Mass (kg)</b>	32	

Design and specifications are subject to change without notice.

### CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

### SAFETY-RELATED COMPONENT WARNING!!

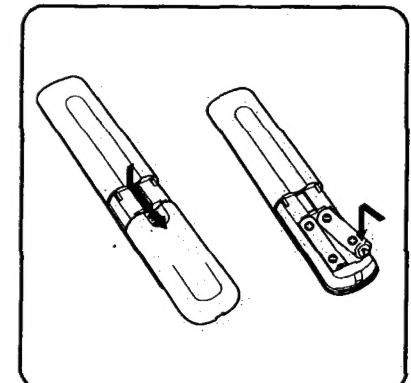
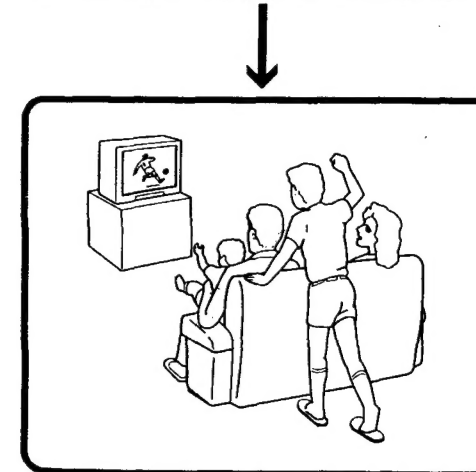
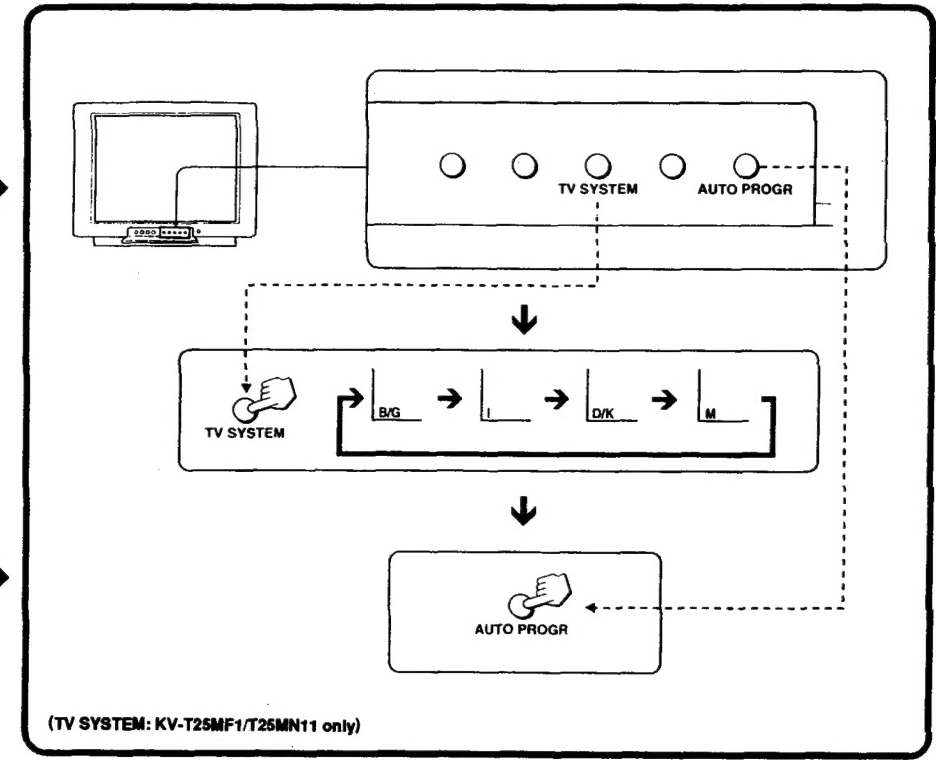
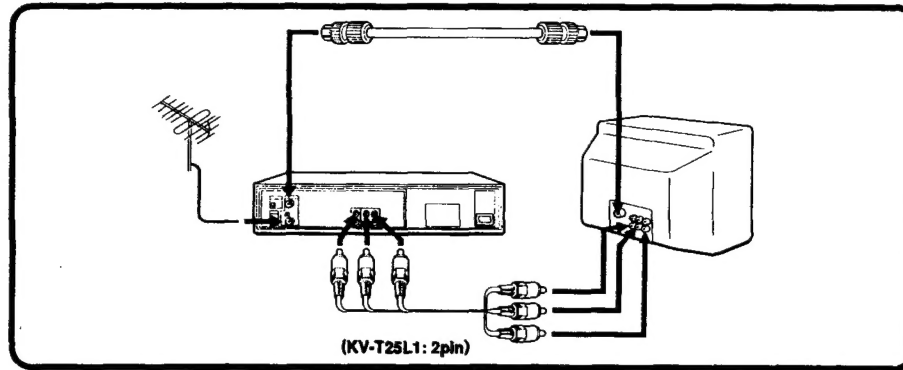
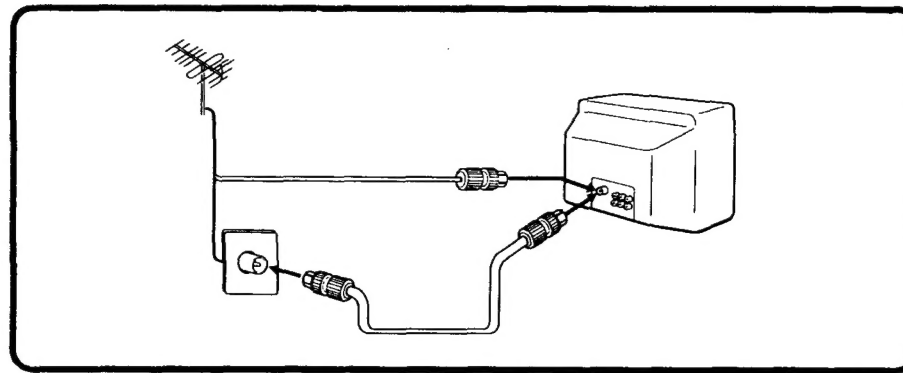
COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

## TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
<b>1. GENERAL</b>		4	<b>5. DIAGRAMS</b>		
<b>2. DISASSEMBLY</b>			5-1. Block Diagrams		25
2-1. Rear Cover Removal		10	5-2. Circuit Boards Location		29
2-2. A Board Removal		10			
2-3. Service Position		11			
2-4. Replacement of Parts		11			
2-5. Demagnetization Coil Removal		12			
2-6. Picture Tube Removal		13			
<b>3. SET-UP ADJUSTMENTS</b>					
3-1. Beam Landing		14			
3-2. Convergence		15			
3-3. Focus Adjustment		17			
3-4. G2 (Screen) and White Balance Adjustments		18			
<b>4. CIRCUIT ADJUSTMENTS</b>					
4-1. Adjustments with Commander		19			
4-2. Adjustment Method		20			
4-3. A Board Adjustment after IC003 (Memory)					
Replacement		23			
4-4. Picture Distortion Adjustment		23			

## SECTION 1 GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

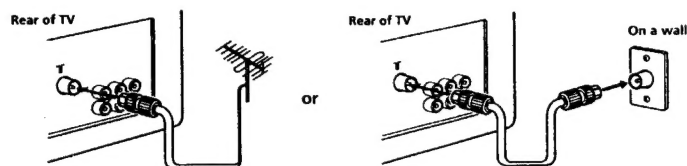




# Connections

## Connecting a VHF antenna or a combination VHF/UHF antenna — 75-ohm coaxial cable (round)

Attach an optional IEC antenna connector to the 75-ohm coaxial cable. Plug the connector into the **T** (antenna) socket at the rear of the TV.

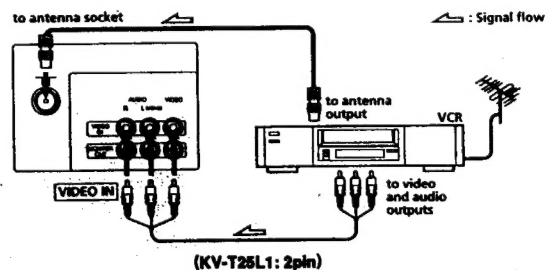


## Connecting optional equipment

You can connect optional audio/video equipment to your TV such as a VCR, multi disc player, camcorder, video game or stereo system.

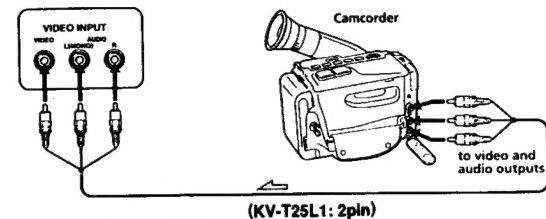
### Connecting video equipment using video input jacks

Rear of TV



**When connecting a monaural VCR**  
Connect the yellow plug to VIDEO and the black plug to AUDIO-L (MONO).

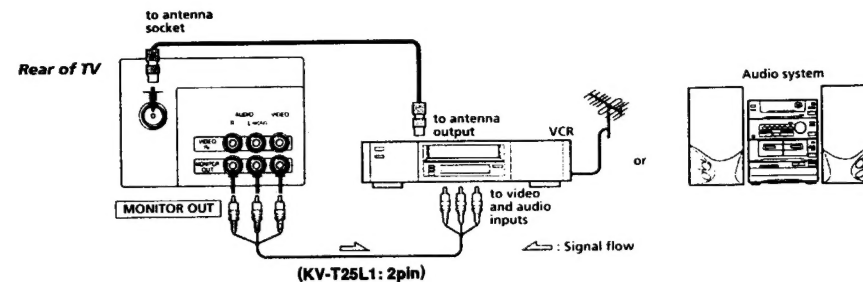
Front of TV



### When using the video input jacks

Do not connect video equipment to the video input jacks at the front and the rear of your TV simultaneously; otherwise the picture will not be displayed properly on the screen.

### Connecting audio/video equipment using MONITOR OUT jacks



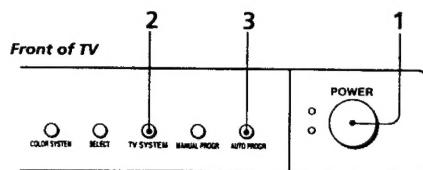
### When recording through the MONITOR OUT jacks

If you change the channel or video input while recording with a VCR, the channel or video input you are recording also will be changed.

## Presetting channels

### Presetting channels automatically

You can preset up to 80 TV channels in numerical sequence from program position 1.

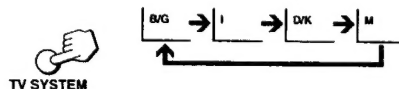


#### 1 Press POWER.

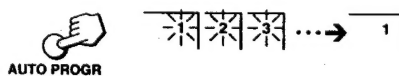


When the TV is in standby mode after pressing POWER, press POWER on the remote commander.

#### 2 Press TV SYSTEM until your local TV system appears. (KV-T25MF1/T25MN11 only)



#### 3 Press AUTO PROGR.



To start presetting channels automatically from the specified program position

- 1 Press MANUAL PROGR.
- 2 Press TV SYSTEM to select your local TV system. (KV-T25MF1/T25MN11 only)
- 3 Press PROGR +/- to select the program position.
- 4 Press AUTO PROGR.

6-EN Getting Started

### Presetting channels manually

To change the channel for a particular program position or to receive a channel with a weak signal, preset the channel manually.

- 1 Press MANUAL PROGR.
- 2 Press PROGR +/- until the required program position appears on the screen.
- 3 Press TV SYSTEM until your local TV system appears. (KV-T25MF1/T25MN11 only)
- 4 Press VOLUME +/- on the TV until the required channel picture appears on the screen.
- 5 Press MANUAL PROGR.

#### If the TV system is not properly selected

The color of the picture may be poor and/or the sound may be noisy. In this case, select the appropriate TV system. (KV-T25MF1/T25MN11 only)

- 1 Press PROGR +/- to select the program position.
- 2 Press TV SYSTEM until the picture and sound become normal.

#### Notes (KV-T25MF1/T25MN11 only)

- If you do not know your local TV system, consult your nearest authorized service center or dealer.
- The setting of the TV SYSTEM is memorized for each program position.

### Disabling program positions

By disabling unused or unwanted program positions, you can skip those positions when you press PROGR +/-.

- 1 Press PROGR +/- until the unused or unwanted program position appears on the screen.
- 2 Press MANUAL PROGR.
- 3 Press PIC MODE on the remote commander.
- 4 Press MANUAL PROGR.

#### To cancel the skip setting

Preset the channel manually or automatically again.

## Operations

## Watching the TV

### 1 Press POWER to turn the TV on.

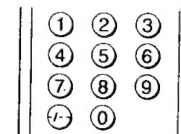


When the TV is in standby mode after pressing POWER, press POWER on the remote commander.

### 2 Select the TV channel you want to watch.

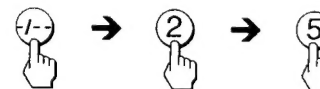
#### To select a channel directly

Press a number button.



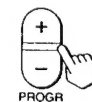
To select a two-digit channel, press "-/-" before the number buttons.

For example: to select channel 25, press "-/-," and then "2" and "5."



#### To scan through channels

Press PROGR +/- until the channel you want appears.

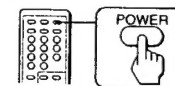


### 3 Press VOL +/- to adjust the volume.



### Switching off the TV

To switch off the TV temporarily, press POWER on the remote commander.



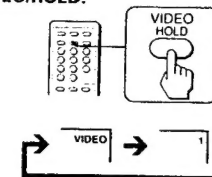
To switch off the TV completely, press POWER on the TV.

If the power on the TV is turned off in standby mode, the STANDBY indicator may remain alight for a while.

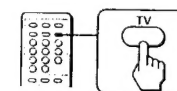


### Watching the video input

Press VIDEO/HOLD.

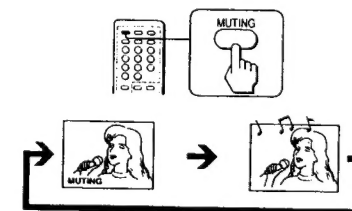


To watch TV, press TV.



### Muting the sound

Press MUTING.

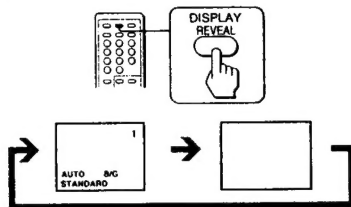


Operations 7-EN

## Displaying on-screen information

### Press DISPLAY/REVEAL.

The program position, local system, and TV settings are displayed on the screen.

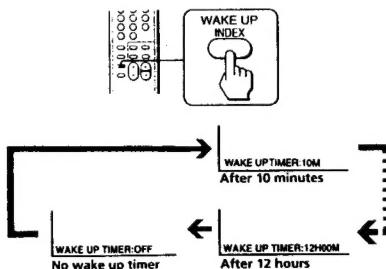


## Setting the Wake Up Timer

You can set the TV to turn on automatically after the period of time you want.

### 1 Press WAKE UP/INDEX repeatedly to set the timer.

The on-screen display appears and the WAKE UP/ STEREO indicator lights up.



### 2 If you want a particular TV program or video input to be displayed using the Wake Up Timer, select the TV program or video mode.

### 3 Press POWER on the remote commander or set the Sleep Timer to turn off the TV in standby mode.

To cancel the Wake Up Timer, press WAKE UP/ INDEX repeatedly until "WAKE UP TIMER: OFF" appears, or turn off the main power of the TV.

#### Notes

- The Wake Up Timer starts immediately after the on-screen display disappears.
- The last TV program position or video mode just before the TV

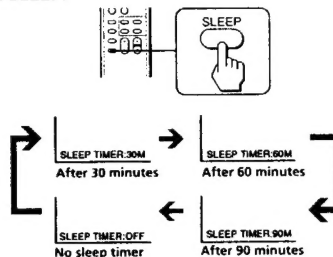
turns into standby mode will appear when the TV turns on using the Wake Up Timer.

- If no buttons or controls are pressed for more than two hours after the TV is turned on using the Wake Up Timer, the TV automatically turns into standby mode. When you want to continue watching the TV, press any button or control on the TV or remote commander.

## Setting the Sleep Timer

You can set the TV to turn off automatically after the period of time you want.

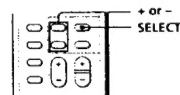
### Press SLEEP.



To cancel the Sleep Timer, press SLEEP repeatedly until "SLEEP TIMER: OFF" appears, or turn the TV off.

## Changing the on-screen display language

If you prefer Chinese to English, you can change the on-screen display language. You can use buttons on both the remote commander and the TV.



### 1 Press SELECT until the screen appears as follows:



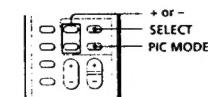
### 2 Press + or - to select "中文".



#### Note

- You can also use VOLUME +/- on the TV to select the on-screen display language.

## Adjusting the picture and sound

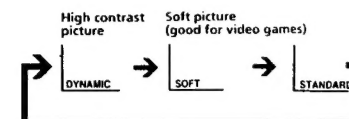


## Selecting the picture mode

Press PIC MODE until the mode you want appears.



Each time you press PIC MODE, the screen changes as follows:



#### Note

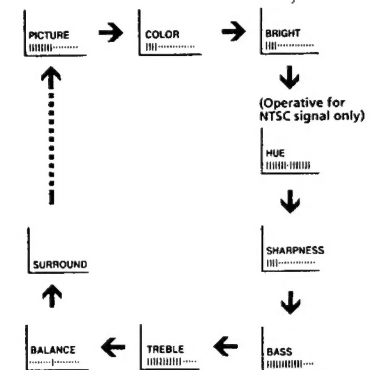
- If you change the picture mode after the following adjustments, the adjustment changes in accordance with the picture mode.

## Adjusting the picture and sound settings

### 1 Press SELECT until the item you want to adjust appears.



Each time you press SELECT, the screen changes as follows:



### 2 Press + or - to adjust the item.



### 3 To adjust other items, repeat steps 1 and 2. (TV SYSTEM: KV-T25MF1/T25MN11 only)

#### Note

- You can also use VOLUME +/- on the TV to adjust the picture and sound settings.

### If the color of the picture is abnormal

Press TV SYSTEM or COLOR SYSTEM or adjust the color setting until the color becomes normal.

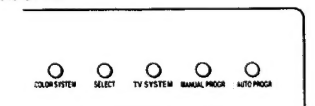
#### Note

- Normally set COLOR SYSTEM to AUTO.

### If the sound is distorted or noisy

When receiving programs through the IF terminal: Press TV SYSTEM until the sound becomes clear.

#### Front of TV

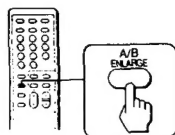


(KV-T25MN11 only)

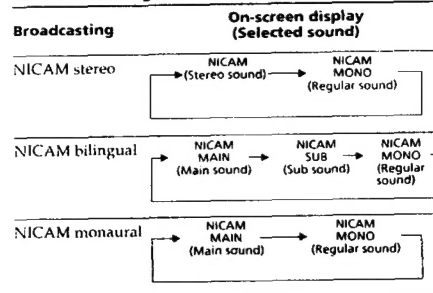
## Selecting a stereo or bilingual program

Press **A/B/ENLARGE** repeatedly until you receive the sound you want.

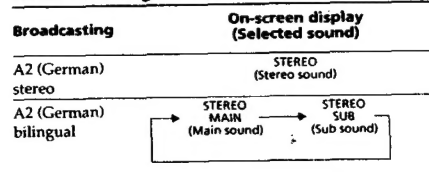
The on-screen display changes corresponding to the selected sound and the WAKE UP/STEREO indicator also lights up.



### When receiving a NICAM program



### When receiving a A2 (German) program



### Receiving area for NICAM and A2 (German) programs

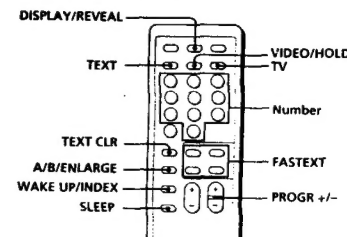
System	Receiving area
NICAM	Hong Kong, Singapore, New Zealand, etc.
A2 (German)	Australia, Malaysia, Thailand, etc.

#### Notes

- If the signal is very weak, the sound becomes monaural automatically.
- If the stereo sound is noisy, select "regular sound." The sound becomes monaural, however, the noise will be reduced.

(KV-T25MN11/T25SF11 only)

## Viewing Teletext



### Displaying Teletext

- 1 Select a TV channel which carries the Teletext broadcast you want to watch.
- 2 Press **TEXT** to display the Teletext.  
A Teletext page is displayed (normally the index page). If there is no Teletext broadcast, 100 is displayed at the top left corner of the screen.

To cancel the Teletext display, press **TV**.

### Superimposing a Teletext page on the TV picture

Press **TEXT**.

Each time you press **TEXT**, the screen changes as follows:



### Checking the contents of a Teletext service (INDEX)

Press **WAKE UP/INDEX** to display an overview of the Teletext contents and page numbers.

### Using FASTEXT

This feature allows you to quickly access a Teletext page that uses **FASTEXT**. When a **FASTEXT** page is broadcasted, a color-coded menu appears at the bottom of the screen. The colors of the menu correspond to the **RED**, **GREEN**, **YELLOW**, and **CYAN** buttons on the remote commander.

Press the color button which corresponds to the color-coded menu.

The page is displayed after a few seconds.

### Selecting a Teletext page

To input the three-digit page number of the Teletext page, press the number buttons.

If you make a mistake, key in the correct page number again.

To access the next or previous page, press **PROGR +/-**.

### Holding a Teletext page (subpage)

Press **VIDEO/HOLD**.

The **HOLD** symbol "Ⓜ" is displayed at the top left corner of the screen.

To resume normal Teletext operation, press **VIDEO/HOLD** again or **TEXT**.

### Revealing concealed information

Press **DISPLAY/REVEAL**.

To conceal the information, press **DISPLAY/REVEAL** again.

### Enlarging the Teletext display

Press **A/B/ENLARGE**.

Each time you press **A/B/ENLARGE**, the Teletext display changes as follows:



### Waiting for a Teletext page while watching a TV program (TEXT CLEAR)

- 1 Key in the page number of the Teletext that you want to refer, then press **TEXT CLR**.
- 2 When the page number is displayed on the screen, press **TEXT** to switch the Teletext on.

## Troubleshooting

If you have any problems, read this manual again and check the countermeasure for each of the symptoms listed below.  
If the problem persists, contact your nearest authorized service center or dealer.

### Snowy picture Noisy sound



- Check the antenna.
- Check the antenna connection on the TV and on the wall.
- Check the TV SYSTEM setting.  
(KV-T25MF1/T25MN11 only)

### Dotted lines or stripes



- This may be caused by local interference (e.g. cars, neon signs, hair dryers, etc.).
- Adjust the antenna for minimum interference.

### Double images or "ghosts"

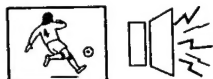


- This may be caused by reflections from nearby mountains or buildings. A highly directional antenna may improve the picture.

### Note on the remote commander

- The supplied remote commander is used on several models of the TV. If you do not find instructions for some controls that are on the remote commander, that means your TV does not employ the features of those controls, e.g. TEXT.

### Good picture Noisy sound



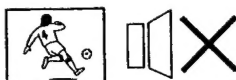
- Check the TV SYSTEM setting.  
(KV-T25MF1/T25MN11 only)

### No picture No sound



- Press POWER.
- Check the antenna connection.
- Check the VCR connections.
- Check the power cord connection.
- Check the standby mode.

### Good picture No sound



- Press VOLUME +.
- Press MUTE.

### No color



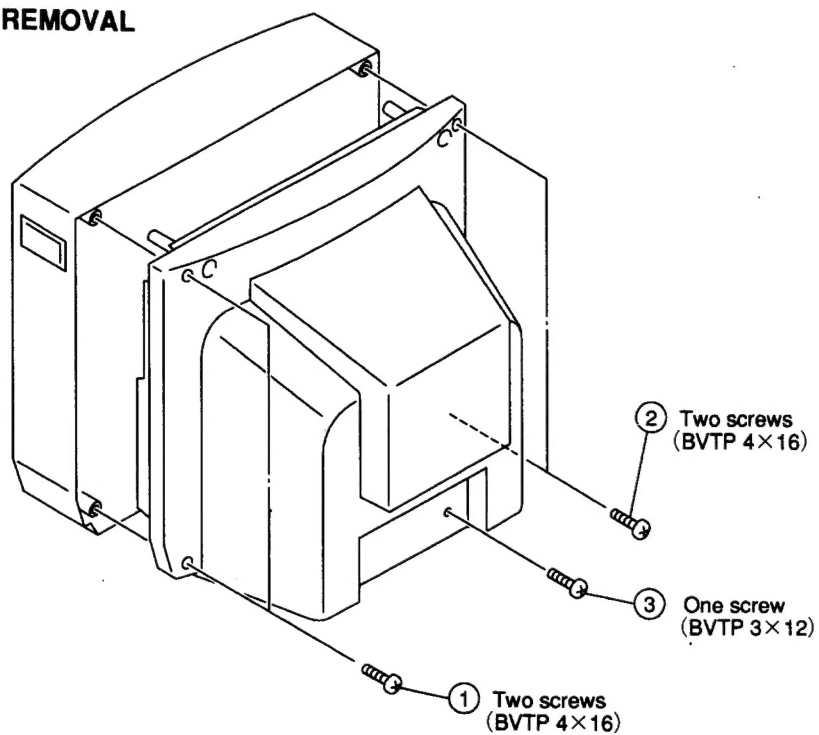
- Adjust the COLOR level in the on-screen display.
- Check the COLOR SYSTEM setting.

### TV cabinet creaks

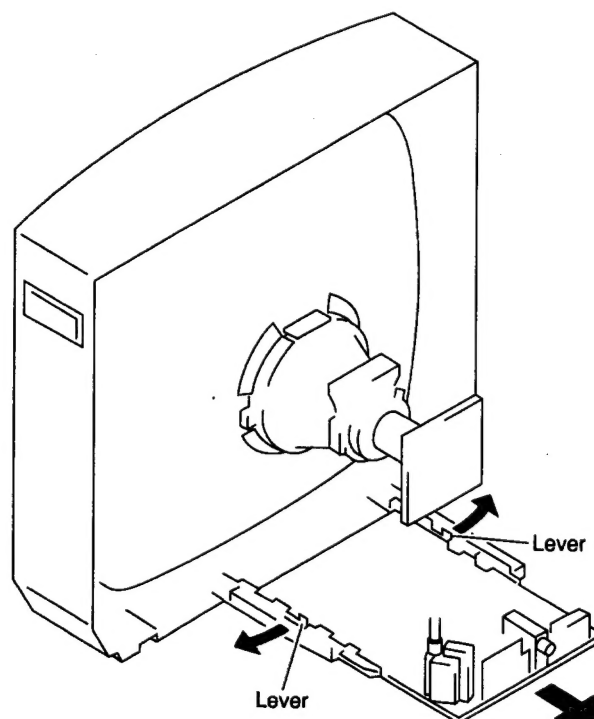
- Even if the picture or the sound is normal, changes in the room temperature sometimes make the TV cabinet expand or contract, making a noise. This does not indicate a malfunction.

## SECTION 2 DISASSEMBLY

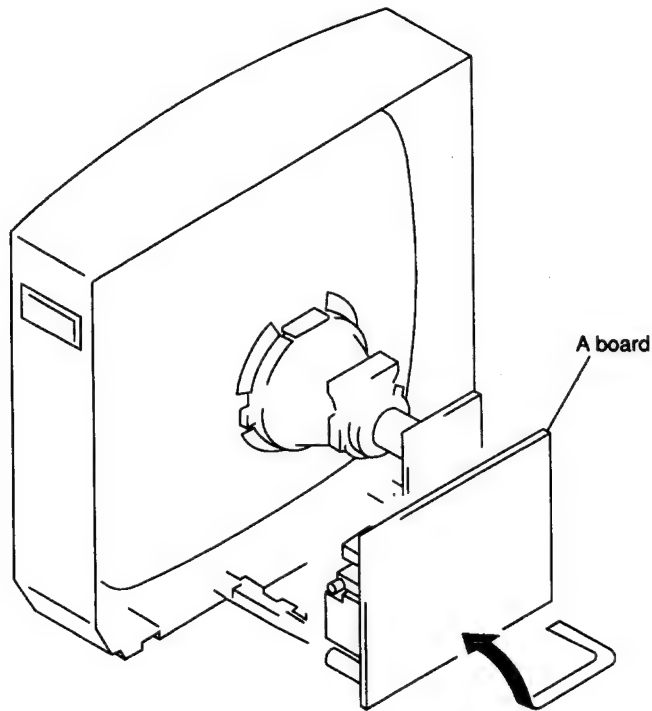
### 2-1. REAR COVER REMOVAL



### 2-2. A BOARD REMOVAL



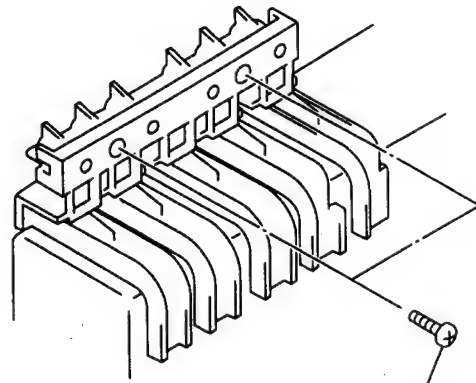
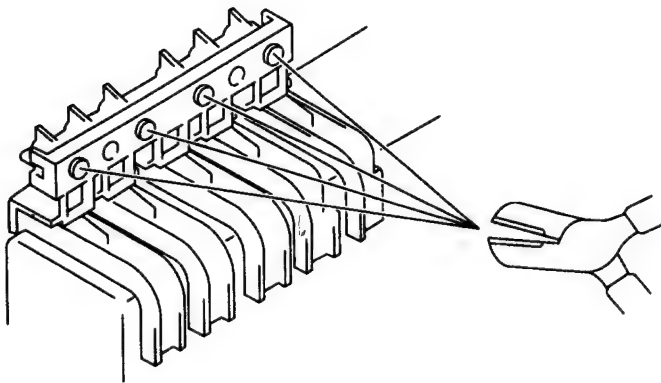
### 2-3. SERVICE POSITION



### 2-4. REPLACEMENT OF PARTS

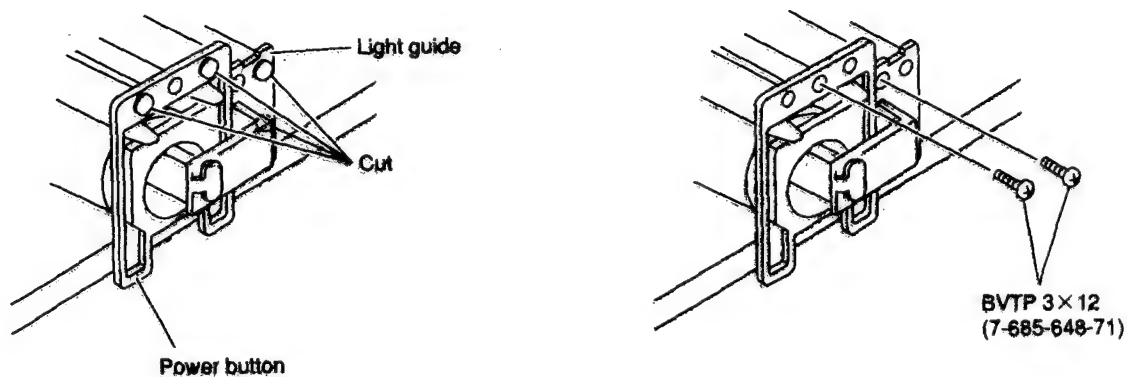
For replacement of the Multi Button, Power Button and Light Guide, cut the welded portions from them, exchange with the new parts, and fix them with screws (+BVTP) respectively.

#### 2-4-1. REPLACEMENT OF MULTI BUTTON

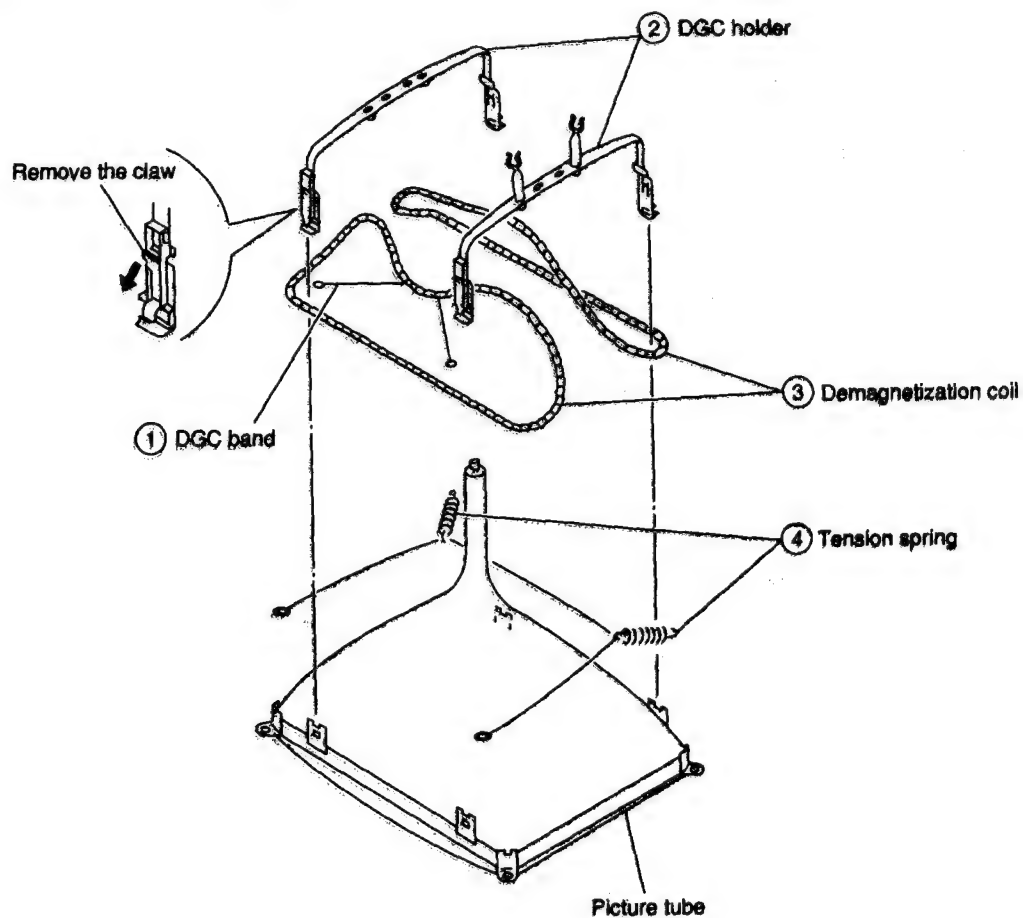


BVTP 3×12  
(7-685-648-71)

#### 2-4-2. REPLACEMENT OF LIGHT GUIDE, POWER BUTTON

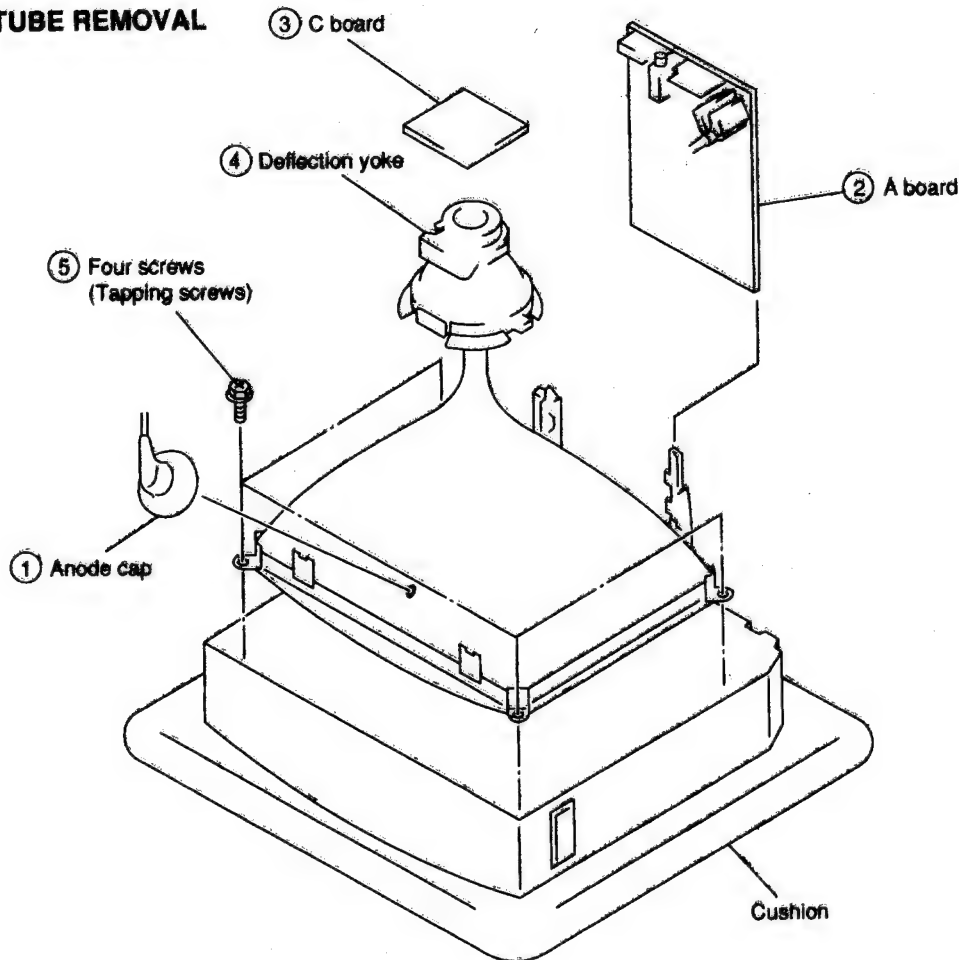


#### 2-5. DEMAGNETIZATION COIL REMOVAL





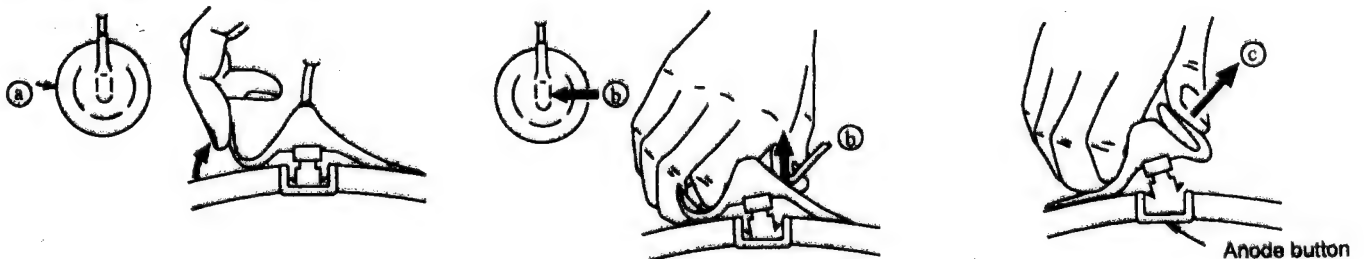
## 2-6. PICTURE TUBE REMOVAL



### • REMOVAL OF ANODE-CAP

**NOTE :** Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

### • REMOVING PROCEDURES

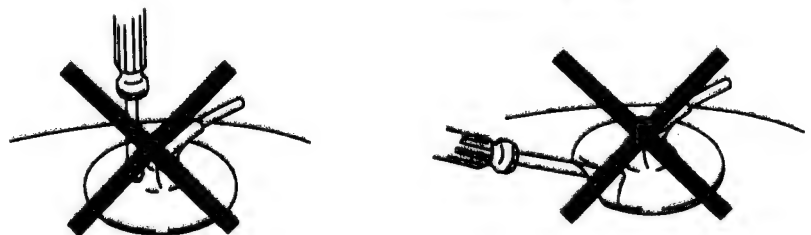


- ① Turn up one side of the rubber cap in the direction indicated by the arrow (a).  
② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow (b).

- ③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow (c).

### • HOW TO HANDLE AN ANODE-CAP

- ① Don't hurt the surface of anode-caps with sharp shaped material!
- ② Don't press the rubber hardly not to hurt inside of anode-cap!  
A material fitting called as shatter-hook terminal is built in the rubber.
- ③ Don't turn the foot of rubber over hardly!  
The shatter-hook terminal will stick out or hurt the rubber.



## SECTION 3

### SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switch should be set as follows unless otherwise noted :

PICTURE control ..... normal  
BRIGHTNESS control ..... normal

#### Preparations :

- In order to reduce the influence of geomagnetism on the set's picture tube face it east or west.
- Switch on the set's power and degauss with the degausser.

#### 3-1. BEAM LANDING

1. Input the white signal with the pattern generator.  
Contrast } normal  
Brightness }
2. Set the pattern generator raster signal to green.
3. Move the deflection yoke to the rear and adjust with the purity control so that the green is at the center and the blue and the red take up equally sized areas on each side.  
(See Figures 3-1 through 3-3.)
4. Move the deflection yoke forward and adjust so that entire screen is green. (See Figure 3-1.)
5. Switch the raster signal to blue, then to red and verify the condition.
6. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
7. If the beam does not land correctly in all the corners, use a magnet to adjust it.  
(See Figure 3-4.)

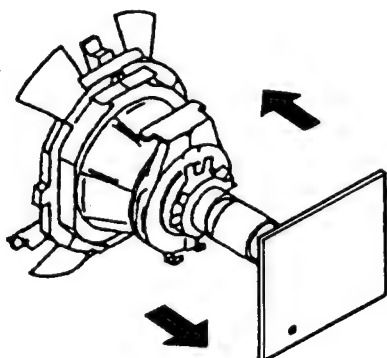


Fig. 3-1

Perform the adjustments in order as follows :

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

Note : Test Equipment Required.

1. Color-bar/Pattern Generator
2. Degausser
3. Oscilloscope

Purity control

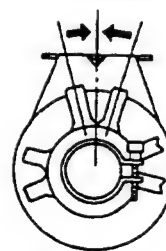


Fig. 3-2

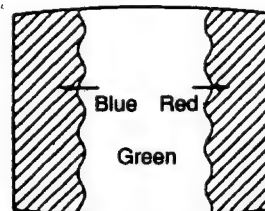


Fig. 3-3

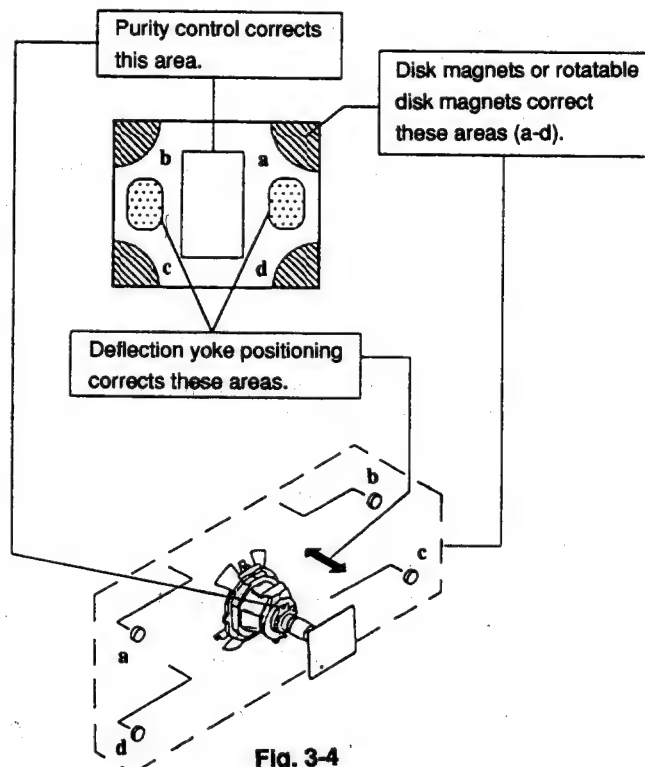


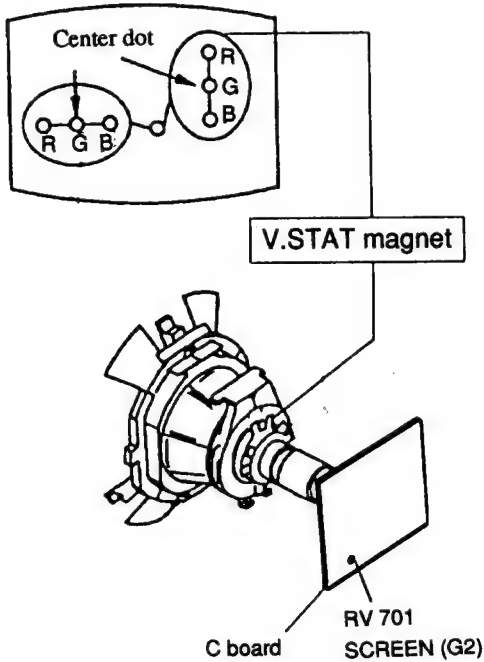
Fig. 3-4

### 3-2. CONVERGENCE

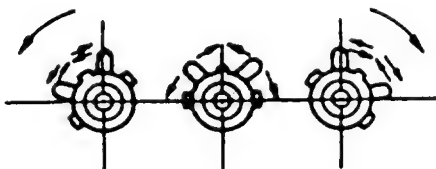
#### Preparations :

- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

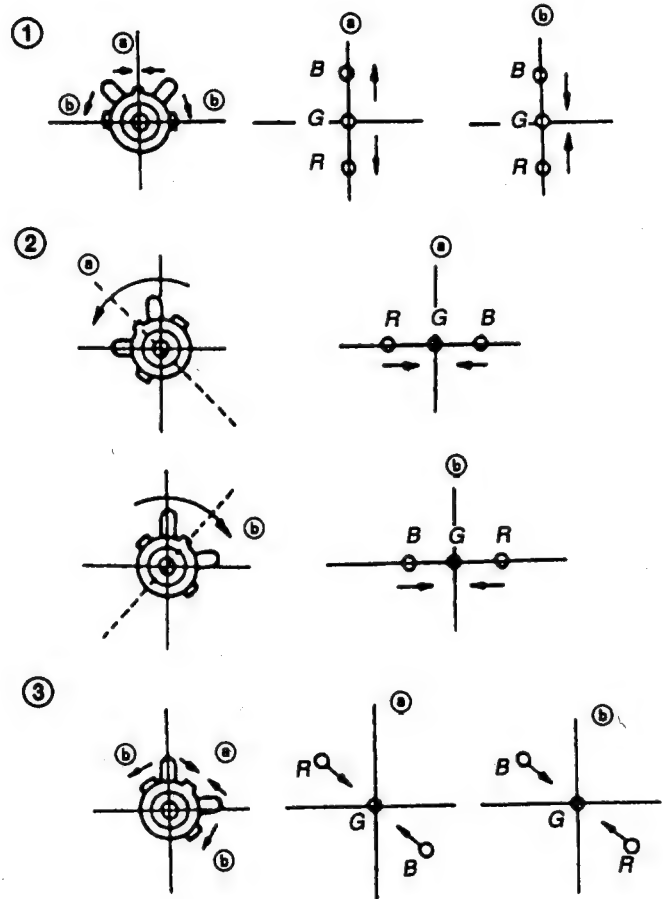
#### (1) Horizontal and Vertical Static Convergence



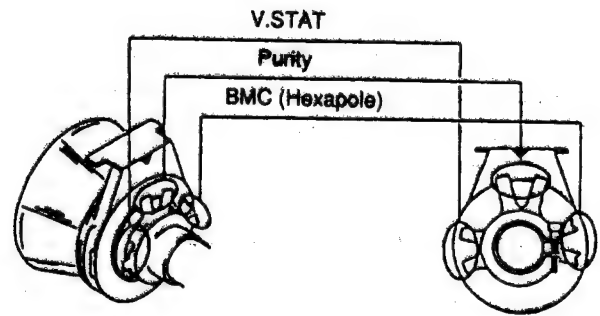
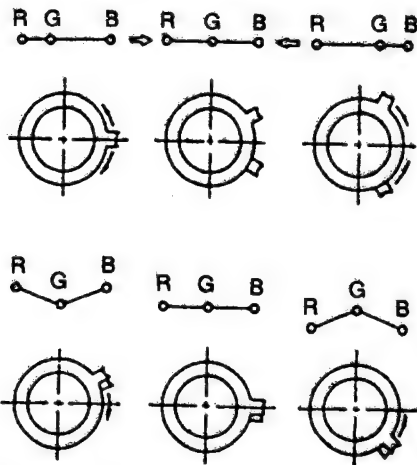
1. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
  2. (Moving horizontally), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



3. If the V.STAT magnet is moved in the direction of the ① and ② arrows, the red, green, and blue points move as shown below.



- Operation of BMC (Hexapole) Magnet.

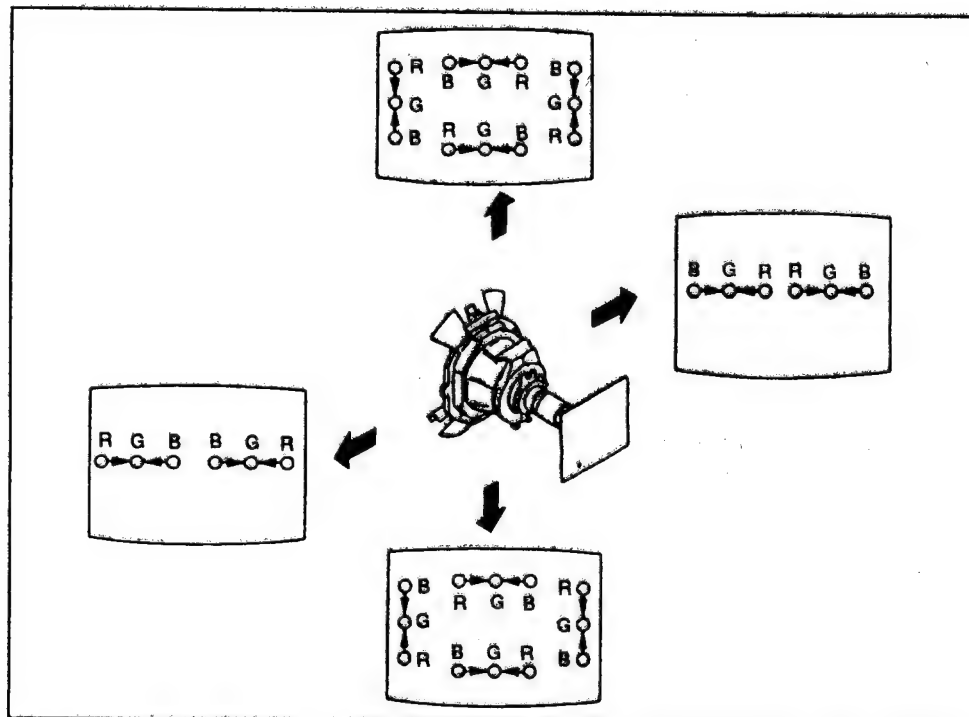


- The respective dot positions resulting from moving each magnet interact, so be sure to perform adjustment while tracking.  
Use the V.STAT magnet to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).

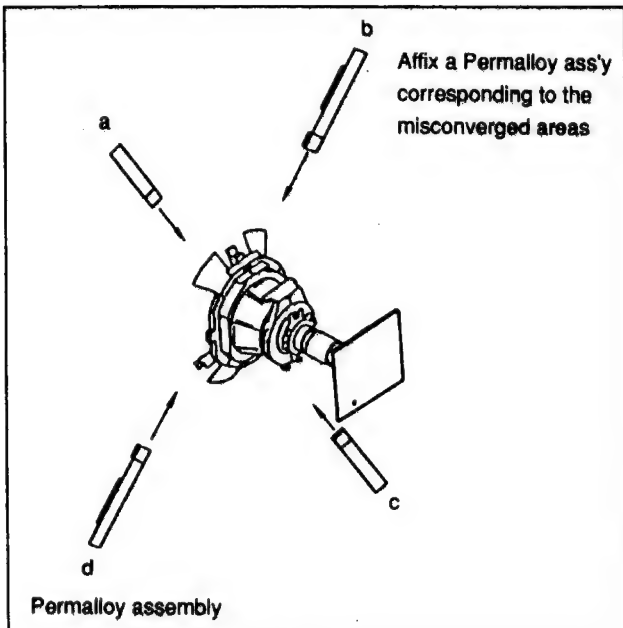
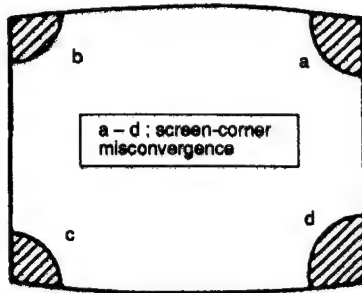
## (2) Dynamic Convergence Adjustment

### Preparations :

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.
- Slightly loosen the deflection yoke screws.
- Remove the deflection yoke spacer.
- Move the deflection yoke as shown in the figure below and optimize the convergence.
- Tighten the deflection yoke screws.
- Install the deflection yoke spacer.

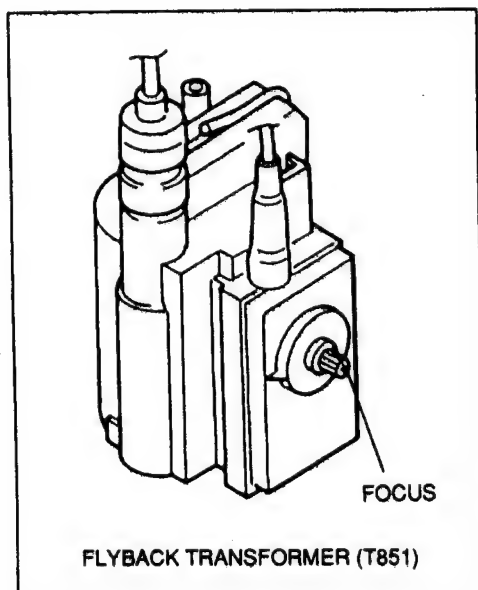


### (3) Screen-corner Convergence



### 3-3. FOCUS ADJUSTMENT

Adjust FOCUS control on the flyback transformer for a best focus.



### a. AN ITEM OF ADJUSTMENT

Item number	Adjustment item	Initial DATA	Note
09	RDR	25	WHITE POINT R
0A	GDR	20	WHITE POINT G
0B	BDR	20	WHITE POINT B

### b. METHOD OF CANCELLATION FROM SERVICE MODE

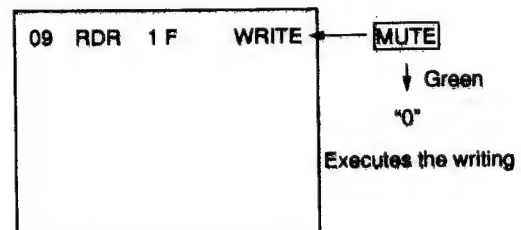
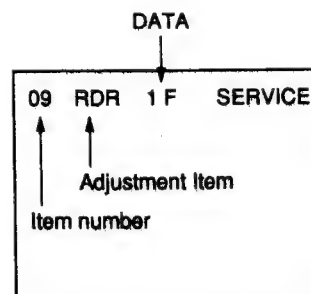
Set the standby condition (Press **POWER** button on the commander) in the next place, press **POWER** button again, hereupon it becomes TV mode.

### c. METHOD OF WRITE FOR MEMORY

- 1) Set to Service Mode.
- 2) Press **1** (UP) and **4** (DOWN), select an item of adjustments.
- 3) Press **MUTE** button indicate WRITE (Green) on screen.
- 4) Press **0** button to write into memory.

### d. MEMORY WRITE CONFIRMATION METHOD

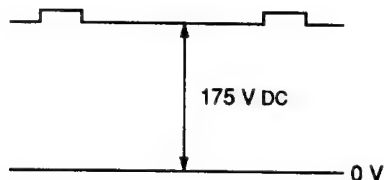
- 1) After adjustment, pull out the plug from AC outlet, and next place, plug in AC outlet again.
- 2) Turn the power switch ON and set to Service Mode.
- 3) Call the adjusted items again, confirm they were adjusted.



### 3-4. G2 (SCREEN) AND WHITE BALANCE ADJUSTMENTS

#### 1. G2 (SCREEN) ADJUSTMENT (RV701)

- 1) Set the PICTURE and BRIGHTNESS to normal.
- 2) Put to VIDEO input mode without signals.
- 3) Connect R, G, and B of the C board cathode to the oscilloscope.
- 4) Adjust G2 (RV701) volume to the value below.



#### 2. WHITE BALANCE ADJUSTMENTS

- 1) Set the Service Mode.
- 2) Input an entire white signal.
- 3) Set the PICTURE to maximum.
- 4) Select RDR(09) with **[1]** and **[4]**, and then set the level to 25 with **[3]** and **[6]**.
- 5) Select GDR(0A) and BDR(0B) with **[1]** and **[4]** and adjust the level with **[3]** and **[6]** for the best white balance.
- 6) Write into the memory by pressing **[MUTE]** → then **[0]**.

## SECTION 4

### CIRCUIT ADJUSTMENTS

#### 4-1. ADJUSTMENTS WITH COMMANDER

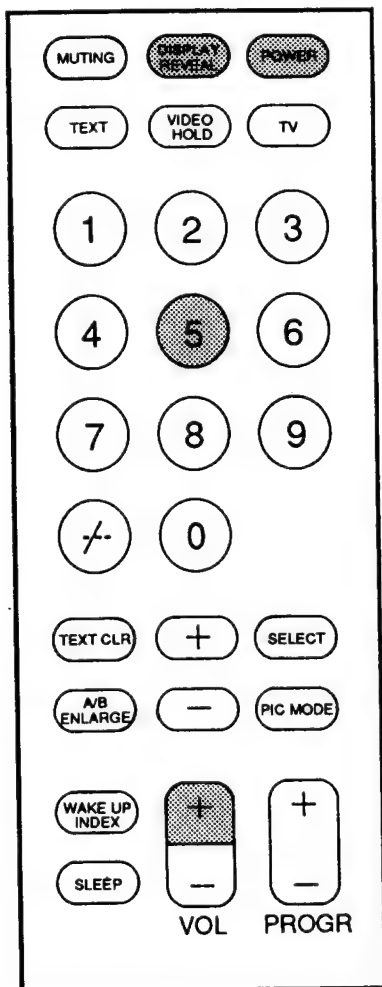
Service adjustments are made with the RM-870 that comes with this unit.

##### Entering service mode

With the unit on standby

↓  
"DISPLAY"  
↓  
"5"  
↓  
"VOL (+)"  
↓  
"POWER"

The operation sequence puts the unit into service mode.

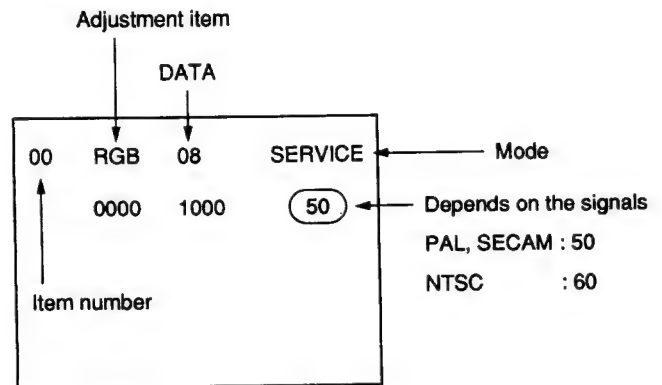


RM-870

"1", "4"	Raise/lower the service item number
"3", "6"	Raise/lower the data
"MUTING"	Writes
"0"	Executes the writing

"7", "0"	The data all becomes the values in memory
"8", "0"	User control all goes to the standard state
"5", "0"	Service data initialization (Be sure not to use usually.)
"2", "0"	Write 50Hz adjustment data to 60Hz, or viceversa.

The screen display is :



"1", "4"	Select the adjustment item.
↓	
"3", "6"	Raise/lower the data.
↓	
"MUTING"	Writes
↓	
"0"	Executes the writing.

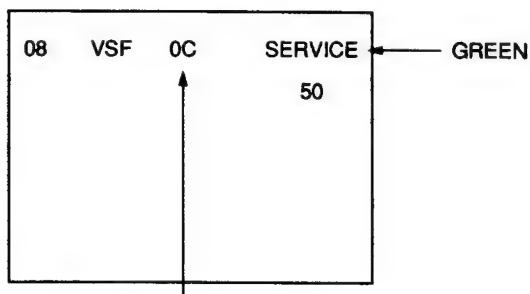
## 4-2. ADJUSTMENT METHOD

Item Number 08

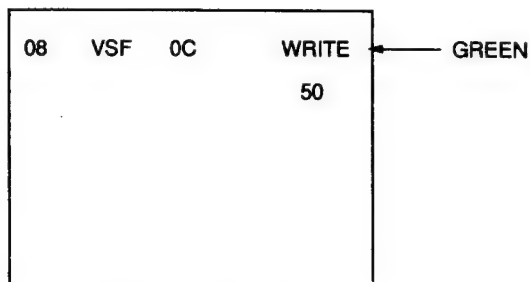
This explanation uses V-SHIFT as an example.

1. Select 08 V-SHIFT with the "1" and "4" buttons.
2. Raise/lower the data with the "3" and "6" buttons.
3. Select the optimum state. (The standard is for 0F PAL reception.)
4. Write with the MUTE button.
5. Execute the writing with the "0" button. (The WRITE display.)

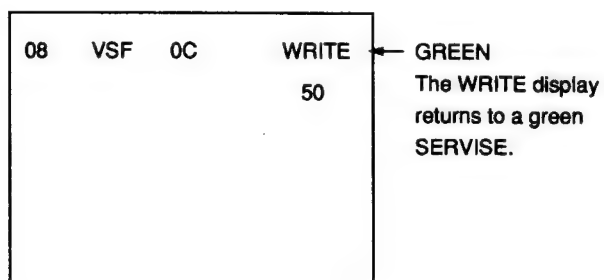
Use the same method for Items Number 00-40. Use "1" and "4" to select the adjustment item, use "3" and "6" to adjust, write with "MUTE", then execute the write with "0".



Adjusted with "3" and "6" buttons



Written with "MUTE"



Write executed with "0"



Adjustment Item Table

Item number	Adjustment Item	Data range	Initial data	Standard data		Note	Device
00	HSF	00~3F	24	50: 21	60: 26	H SHIFT	(TDA8366)
01	HSZ	00~3F	23	50: 27	60: 28	H SIZE	(TDA8366)
02	PAP	00~3F	21	50: 25	60: 25	PIN AMPLITUDE	(TDA8366)
03	CNP	00~3F	29	50: 2D	60: 2F	CORNER PIN	(TDA8366)
04	TLT	00~3F	20	50: 24	60: 20	TILT	(TDA8366)
05	VSL	00~3F	20	50: 21	60: 21	V SLOPE	(TDA8366)
06	VAP	00~3F	1D	50: 3E	60: 3F	V AMPLITUDE	(TDA8366)
07	SCR	00~3F	20	50: 29	60: 29	S CORRECTION	(TDA8366)
08	VSF	00~3F	20	50: 39	60: 3A	V SHIFT	(TDA8366)
09	RDR	00~3F	25	25 (Fix)		WHITE POINT R	(TDA8366)
0A	GDR	00~3F	20	20		WHITE POINT G	(TDA8366)
0B	BDR	00~3F	20	20		WHITE POINT B	(TDA8366)
0C	YDL	00~0F	00	00		Y DELAY ADJUSTMENT	(TDA8366)
0D	FO	00~02	00	TV: 00	VIDEO: 00	PHI-1TIME CONSTANT	(TDA8366)
0E	AGC	00~3F	06	TV: 06	VIDEO: 06	AGC TAKE OVER	(TDA8366)
0F	VSW	00~01	01	TV: 00	VIDEO: 01	VIDEO MUTE	(TDA8366)
10	FOR	00~03	00	0		FORCED FIELD FREQ.	(TDA8366)
11	DL	00~01	00	0		INTERLACE	(TDA8366)
12	POC	00~01	00	0		SYNCHRONISATION	(TDA8366)
13	NCI	00~01	00	50: 00	60: 00	V DIVIDER MODE	(TDA8366)
14	VID	00~01	00	50: 00	60: 00	VIDEO IDENT MODE	(TDA8366)
15	HCO	00~01	00	50: 00	60: 00	EHT TRACKING MODE	(TDA8366)
16	EVG	00~01	00	50: 00	60: 00	ENABLE V GUARD	(TDA8366)
17	SBL	00~01	00	50: 00	60: 00	SERVICE BLANKING	(TDA8366)
18	PRD	00~01	00	50: 00	60: 00	OVER-VOLTAGE INPUT	(TDA8366)
19	EXP	00~03	00	00		V DEFLECTION MODE	(TDA8366)
1A	SFM	00~01	01	01		H FREQ. DURING SWON	(TDA8366)
1B	PHL	00~01	00	00		COLOR X-TAL PLL	(TDA8366)
1C	COR	00~01	00	00		NOISE CORING PEAK	(TDA8366)
1D	PMX	00~3F	20	2D		PICTURE MAX DATA	(TDA8366)
1E	SBR	00~7F	4B	53		SUB-BRIGHTNESS	(TDA8366)
1F	SHU	00~0F	07	07		SUB-HUE	(TDA8366)
20	SSH	00~03	01	TV: 01	VIDEO: 03	SUB-SHARPNESS	(TDA8366)
21	SCL	00~3F	3F	50: 3F	60: 3F	SUB-COLOR	(TDA8366)

For KV-T25L1/T25MF1/T25SF1/T25SF11 only

22	TXP	00~0F	09	09	Text Picture cont.	(SAA5281)
23	MXP	00~0F	0B	0B	Text Mix mode Pic.	(SAA5281)
24	ODL	00~FF	10	10	Power ON Delay	(CXP85200)
25	OFR	00~0F	00	00	Remo. con. RGB OUT	(CXP85200)
26	OFM	00~0F	00	00	Main power RGB OUT	(CXP85200)
27	OSH	00~3F	0A	06	OSD Position H	(CXP85200)
28	MUT	00~01	01	00	No Sync. Mute	(CXP85200)
29	ABL	00~01	01	01	Bright ABL	(CXP85200)
2A	OP0	00~FF	40	2B	Option 0	(CXP85200)
2B	OP1	00~FF	07	07	Option 1	(CXP85200)

※ 50 ... 50Hz data 60 ... 60Hz data

※ Standard data listed on the Adjustment Item Table are reference values, therefore differ per model.

For KV-T25MN11 only

Item number	Adjustment Item	Data range	Initial data	Standard data	Note	Device
22	FAW	00~FF	08	08 (Fix)	NICAM FAW Thresh	(MSP3410)
23	CTM	00~FF	08	08 (Fix)	NICAM Error Bit (MONO)	(MSP3410)
24	CTN	00~FF	50	50 (Fix)	NICAM Error Bit (NICAM)	(MSP3410)
25	WCD	00~FF	15	15	W. G. Change Data	(MSP3410)
26	WST	00~FF	50	50	W. G. Stereo Cut Point	(MSP3410)
27	WTM	00~FF	EA	EA	W. G. Timer Change	(MSP3410)
28	WBT	00~FF	01	01	W. G. BILINGUAL	(MSP3410)
29	ACG	00~01	50	50	AGC AUTO/CONST.	(MSP3410)
2A	CDB	00~7F	50	50	AGC GAIN CONST.	(MSP3410)
2B	FGP	00~7F	24	24	FM (BG, I, DK) Prescale	(MSP3410)
2C	FMP	00~7F	44	44	FM (M) Prescale	(MSP3410)
2D	WGP	00~7F	3C	3C	W. G. Prescale	(MSP3410)
2E	NIP	00~7F	7F	7F	NICAM Plescale	(MSP3410)
2F	CRM	00~01	00	00	Carrier Mute	(MSP3410)
30	ACO	00~01	01	01	Audio Clock Out	(MSP3410)
31	WAC	00~0F	01	01	W. G. Agreement count	(MSP3410)
32	TXP	00~0F	09	09	Text Picture cont.	(SAA5281)
33	MPX	00~0F	0B	0B	Text Mix mode Pic.	(SAA5281)
34	HBL	00~3F	20	20	H Blk Left Width	(CXP85200)
35	HBR	00~3F	20	20	H Blk Right Width	(CXP85200)
36	VBH	00~FF	00	00	V Blk High Width	(CXP85200)
37	VLH	00~FF	FF	FF	V Blk Low Width	(CXP85200)
38	ODL	00~FF	10	10	Power ON Delay	(CXP85200)
39	OFR	00~0F	00	00	Remo. con. RGB OUT	(CXP85200)
3A	OFM	00~0F	00	00	Main power RGB OUT	(CXP85200)
3B	OSH	00~3F	0A	0A	OSD Position H	(CXP85200)
3C	MUT	00~01	01	01	No Sync. Mute	(CXP85200)
3D	DWZ	00~01	00	00	Disable Widezoom	(CXP85200)
3E	ABL	00~01	01	01	Bright ABL	(CXP85200)
3F	OP0	00~FF	40	40	Option 0	(CXP85200)
40	OP1	00~FF	07	07	Option 1	(CXP85200)

No 2A, 3F OP0 \* Input data are different according to models.

Item	-	AV Input		-	-	-	-	-	Saudi
KV-T25MF1	0	1	0	0	0	0	0	0	0
KV-T25MN11	0	1	0	0	0	0	0	0	0
KV-T25L1	0	0	1	0	0	0	0	0	0
KV-T25SF1	0	1	0	0	0	0	0	0	0
KV-T25SF11	0	1	0	0	0	0	0	0	0

No 2B, 40 OP1

Item	-	-	-	TV System		NTSC	SECAM	Chin
KV-T25MF1	0	0	0	0	0	1	1	1
KV-T25MN11	0	0	0	0	0	1	1	1
KV-T25L1	0	0	0	0	1	1	1	1
KV-T25SF1	0	0	0	0	1	1	0	1
KV-T25SF11	0	0	0	0	1	1	0	1

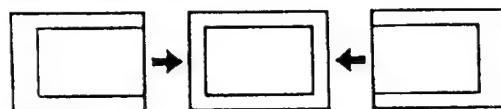
### 4-3. A BOARD, ADJUSTMENT AFTER IC003 (MEMORY) REPLACEMENT

1. Enter to Service Mode.
2. Press commander buttons "5" and "0" (Data Initialize), and "2" and "0" (Data Copy) to initialize the data.
3. Call each item number, and check if the respective screen shows the normal picture.  
In case some items are not well-adjusted, give them fine adjustment.  
Write the data per each item number (MUTE + 0).
4. Select item numbers "2A" (OP0) and "2B" (OP1) for mono, and 3F (OP0) and "40" (OP1) for STEREO, and respectively set the bit per model with command buttons "3" and "6".
5. Press commander buttons "8" and "0" (Test Normal) to return to the data that was set on the shipment from the factory.  
(= Cancel Service Mode.)

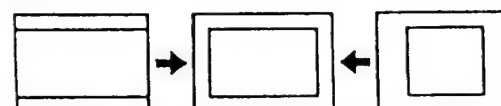
### 4-4. PICTURE DISTORTION ADJUSTMENT

Item Number 00 – 08

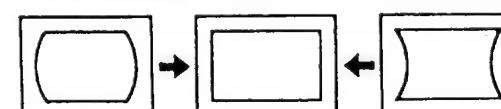
00 HSF (H.SHIFT)



01 HSZ (H SIZE)



02 PAP (PIN AMP)



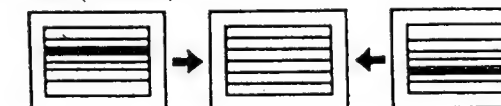
03 CNP (CORNER PIN)



04 TLT (TILT)



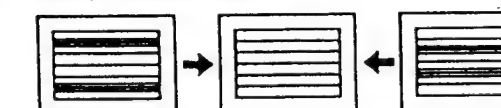
05 VSL (V SLOP)



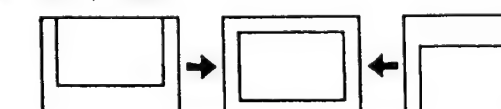
06 VAP (V AMP)



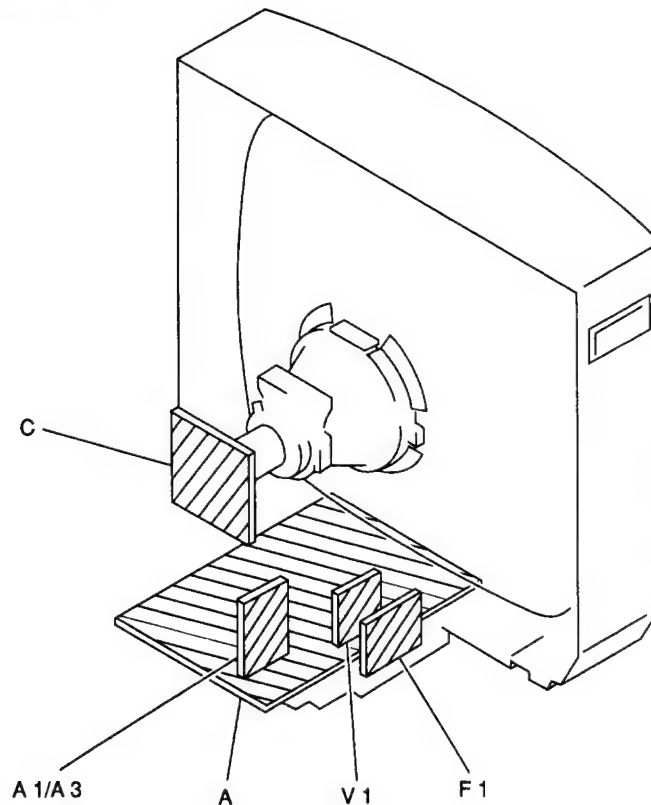
07 SCR (S CORRECTION)



08 VSF (V SHIFT)



## 5-2. CIRCUIT BOARDS LOCATION



## 5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

### Note:

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{F}$  50 WV or less are not indicated except for electrolytic and tantalums.
- All resistors are in ohms.  
 $\text{k}\Omega = 100\Omega$ ,  $\text{M}\Omega = 1000\text{k}\Omega$
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5 mm  
Rating electrical power 1/4W (CHIP: 1/10W)

- : nonflammable resistor.
- : internal component.
- : panel designation, or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Readings are taken with a color-bar signal input.  
no mark : PAL  
( ) : SECAM  
( ) : NTSC 4.43
- Readings are taken with a 10  $\text{M}\Omega$  digital multimeter.
- Voltage are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- \* : Can not be measured.
- Circled numbers are waveform reference.
- : B + bus.
- : B - bus.
- : signal path.

### Reference Information

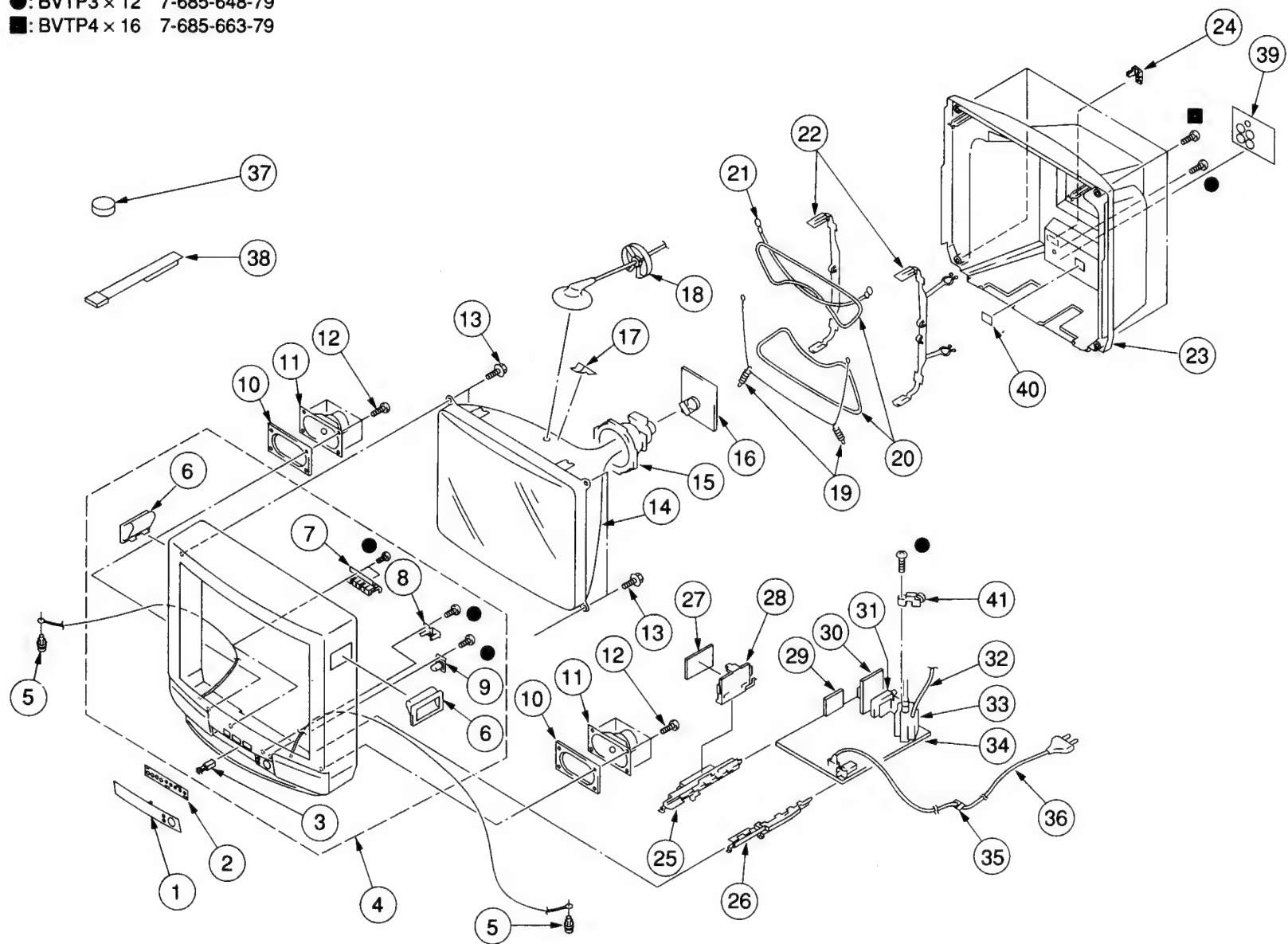
RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFRAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: *	ADJUSTMENT RESISTOR
	: LF-8L	MICRO INDUCTOR
	: TA	TANTALUM
CAPACITOR	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

**Note: The component identified by shading and mark are critical for safety. Replace only with part number specified.**

## 6-1. CHASSIS

●: BVTP3 × 12 7-685-648-79

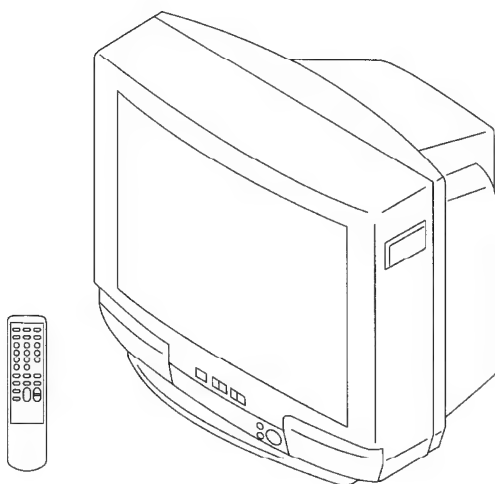
■: BVTP4 × 16 7-685-663-79



# SERVICE MANUAL

## BG-1S CHASSIS

<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>	<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>
<b>KV-T25MN8</b>	RM-870	Hong Kong	SCC-J16H-A				
<b>KV-T25MN81</b>	RM-870	GE	SCC-J40Q-A				
<b>KV-T25SF8</b>	RM-870	Australia	SCC-J99C-A				
<b>KV-T25SF81</b>	RM-870	New Zealand	SCC-K37C-A				



TRINITRON® COLOR TV  
**SONY®**

## SPECIFICATIONS


		Note
<b>Power requirements</b>	110-240 V AC, 50/60 Hz	
<b>Power consumption (W)</b>	Indicated on the rear of the TV	
<b>Television system</b>	B/G, I, D/K, M	
<b>Color system</b>	PAL, PAL 60, SECAM, NTSC4.43, NTSC3.58	
<b>Channel coverage</b>		
<b>B/G</b>	VHF : E2 to E12 / UHF : E21 to E69 / CATV : S01 to S03, S1 to S41	
<b>I</b>	UHF : B21 to B68 / CATV : S01 to S03, S1 to S41	
<b>D/K</b>	VHF : C1 to C12, R1 to R12 / UHF : C13 to C57, R21 to R60 / CATV : S01 to S03, S1 to S41, Z1 to Z39	KV-G25M11
	VHF : R1 to R12 / UHF : R21 to R60 / CATV : S01 to S03, S1 to S41	except KV-G25M11
<b>M</b>	VHF : A2 to A13 / UHF : A14 to A79 / CATV : A-8 to A-2, A to W+4, W+6 to W+8	KV-G25M11
	VHF : A2 to A13 / UHF : A14 to A79 / CATV : A-8 to A-1, A to D, F to W+21, W+23 to W+84	except KV-G25M11
<b>Audio output (speaker)</b>	5W	
<b>Inputs</b>	Antenna: 75 ohms VIDEO IN jacks: phono jacks Video: 1 Vp-p, 75 ohms Audio: 500 mVrms, high impedance	
<b>Outputs</b>	Earphone jack: minijack MONITOR OUT jacks: phono jacks Video: 1 Vp-p, 75 ohms Audio: 500 mVrms	
<b>Picture tube</b>	25 in.	
<b>Tube size (cm)</b>	64	Measured diagonally
<b>Screen size (cm)</b>	60	Measured diagonally
<b>Dimensions (w/h/d, mm)</b>	613 × 542 × 472	
<b>Mass (kg)</b>	32	

Design and specifications are subject to change without notice.

### CAUTION

**SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.**

### SAFETY-RELATED COMPONENT WARNING!!

**COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.**

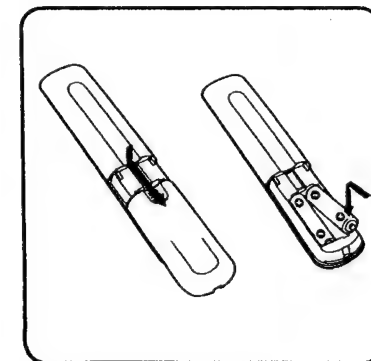
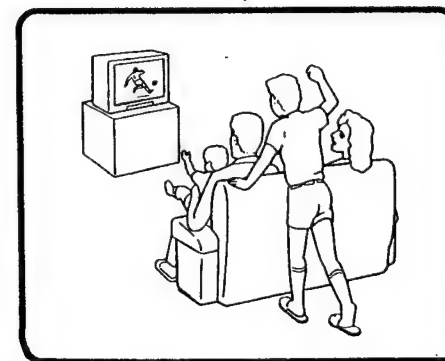
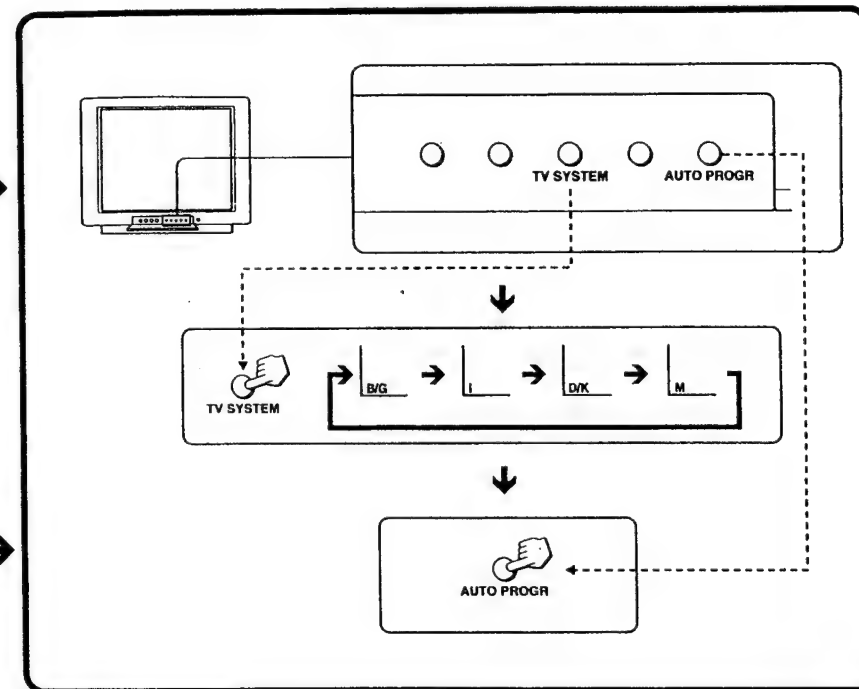
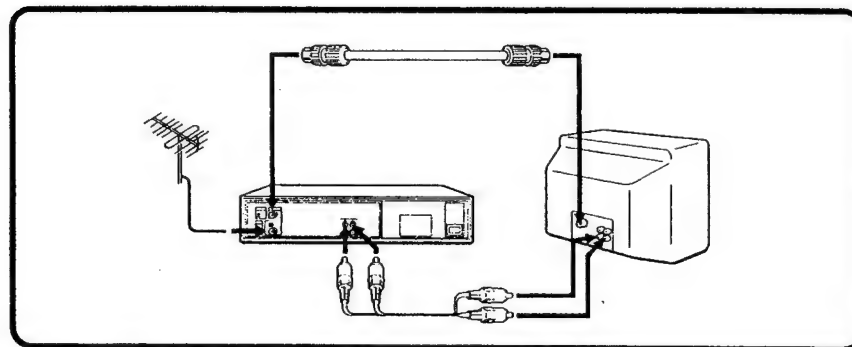
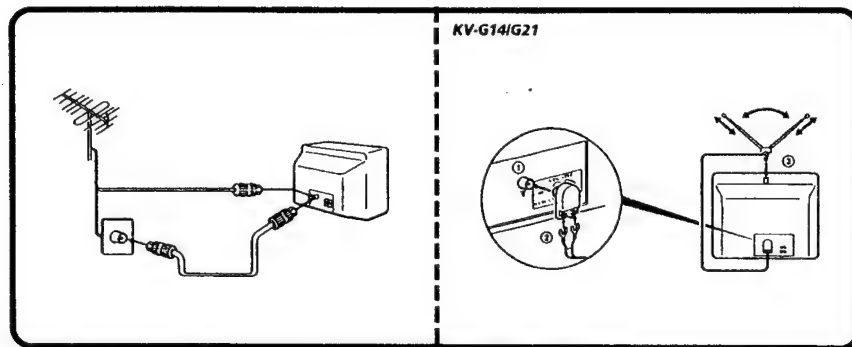
## TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
<b>1. GENERAL</b>		4	<b>5. DIAGRAMS</b>		
<b>2. DISASSEMBLY</b>			5-1. Block Diagrams		23
2-1. Rear Cover Removal		9	5-2. Circuit Boards Location		27
2-2. A Board Removal		9	5-3. Schematic Diagrams and Printed Wiring Boards		
2-3. Service Position		10	(1) Schematic Diagram of A Board		31
2-4. Replacement of Parts		10	(2) Schematic Diagrams of A1, C, F1 and V1 Boards		35
2-5. Demagnetization Coil Removal		11	5-4. Semiconductors		41
2-6. Picture Tube Removal		12	<b>6. EXPLODED VIEWS</b>		
<b>3. SET-UP ADJUSTMENTS</b>			6-1. Chassis		43
3-1. Beam Landing		13	<b>7. ELECTRICAL PARTS LIST</b>		45
3-2. Convergence		14			
3-3. Focus Adjustment		16			
3-4. G2 (Screen) and White Balance Adjustments		17			
<b>4. CIRCUIT ADJUSTMENTS</b>					
4-1. Adjustments with Commander		18			
4-2. Adjustment Method		19			
4-3. A Board Adjustment after IC003 (Memory) Replacement		21			
4-4. Picture Distortion Adjustment		21			



## SECTION 1 GENERAL

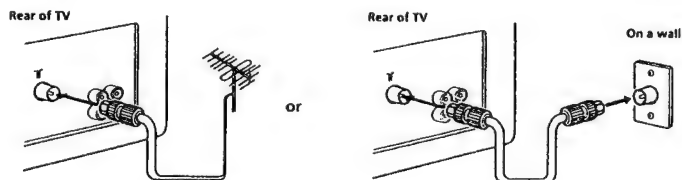
The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.



## Connections

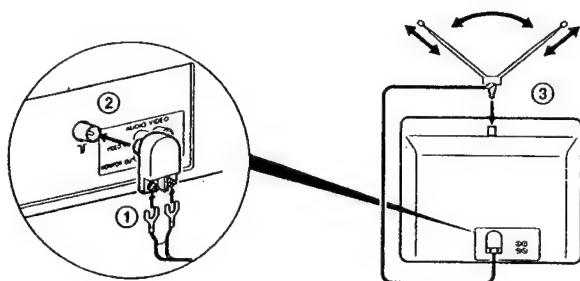
### Connecting a VHF antenna or a combination VHF/UHF antenna — 75-ohm coaxial cable (round)

Attach an optional IEC antenna connector to the 75-ohm coaxial cable.  
Plug the connector into the "I" (antenna) socket at the rear of the TV.



### Connecting an indoor antenna

■ KV-G14/G21



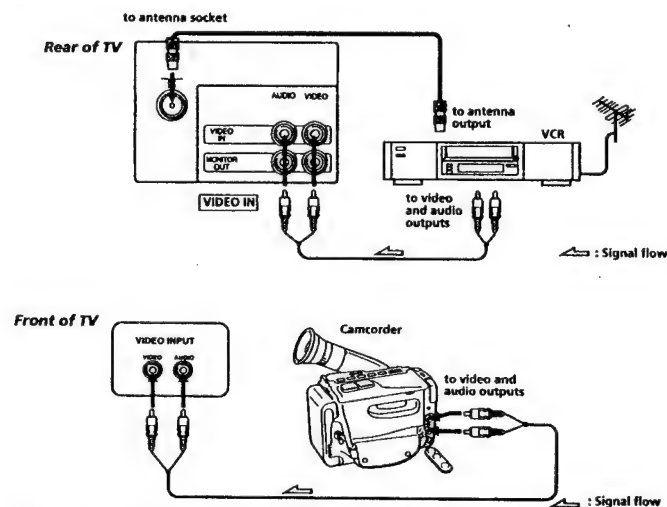
#### Note

- You are advised to use an outdoor antenna for better reception.

### Connecting optional equipment

You can connect optional audio/video equipment to your TV such as a VCR, multi disc player, camcorder, or video game.

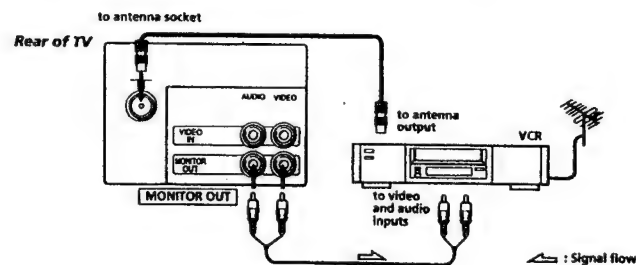
#### Connecting video equipment using VIDEO IN jacks



#### When using the video input jacks

Do not connect video equipment to the VIDEO input jacks at the front and the rear of your TV simultaneously; otherwise the picture will not be displayed properly on the screen.

#### Connecting audio/video equipment using MONITOR OUT jacks



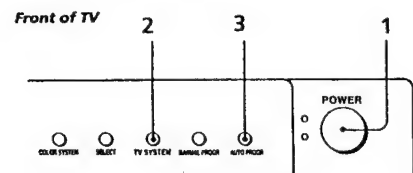
#### When recording through the MONITOR OUT jacks

If you change the channel or video input while recording with a VCR, the channel or video input you are recording also will be changed.

## Presetting channels

### Presetting channels automatically

You can preset up to 80 TV channels in numerical sequence from program position 1.

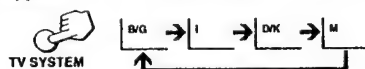


#### 1 Press POWER.

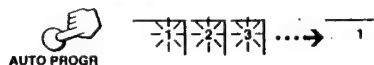


When the TV is in standby mode after pressing POWER, press POWER on the remote commander.

#### 2 Press TV SYSTEM until your local TV system appears.



#### 3 Press AUTO PROG.



To start presetting channels automatically from the specified program position

- 1 Press MANUAL PROG.
- 2 Press TV SYSTEM to select your local TV system.
- 3 Press PROGR +/- to select the program position.
- 4 Press AUTO PROG.

6-EN Getting Started

### Presetting channels manually

To change the channel for a particular program position or to receive a channel with a weak signal, preset the channel manually.

#### 1 Press MANUAL PROG.

#### 2 Press PROGR +/- until the required program position appears on the screen.

#### 3 Press TV SYSTEM until your local TV system appears.

#### 4 Press VOLUME +/- on the TV until the required channel picture appears on the screen.

#### 5 Press MANUAL PROG.

If the TV system is not properly selected  
The color of the picture may be poor and/or the sound may be noisy. In this case, select the appropriate TV system.

- 1 Press PROGR +/- to select the program position.
- 2 Press TV SYSTEM until the picture and sound become normal.

#### Notes

- If you do not know your local TV system, consult your nearest authorized service center or dealer.
- The setting of the TV SYSTEM is memorized for each program position.

### Disabling program positions

By disabling unused or unwanted program positions, you can skip those positions when you press PROGR +/-.

#### 1 Press PROGR +/- until the unused or unwanted program position appears on the screen.

#### 2 Press MANUAL PROG.

#### 3 Press PIC MODE on the remote commander.

#### 4 Press MANUAL PROG.

#### To cancel the skip setting

Preset the channel manually or automatically again.

## Operations

## Watching the TV

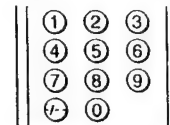
#### 1 Press POWER to turn the TV on.



When the TV is in standby mode after pressing POWER, press POWER on the remote commander.

#### 2 Select the TV channel you want to watch.

To select a channel directly  
Press a number button.



To select a two-digit channel, press "-/-" before the number buttons.

For example: to select channel 25, press "-/-" and then "2" and "5."



#### To scan through channels

Press PROGR +/- until the channel you want appears.

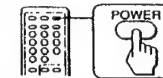


#### 3 Press VOL +/- to adjust the volume.



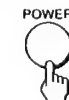
### Switching off the TV

To switch off the TV temporarily, press POWER on the remote commander.



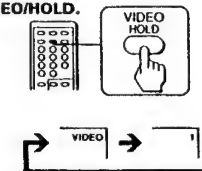
To switch off the TV completely, press POWER on the TV.

If the power on the TV is turned off in standby mode, the STANDBY indicator may remain alight for a while.

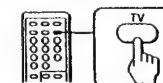


### Watching the video input

Press VIDEO/HOLD.

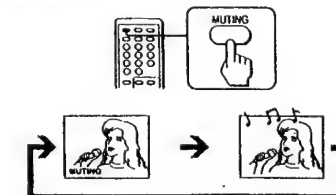


To watch TV, press TV.



### Muting the sound

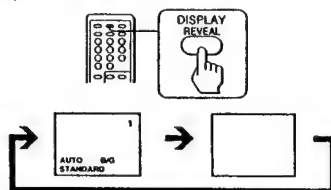
Press MUTING.



## Displaying on-screen information

### Press DISPLAY/REVEAL.

The program position, local system, and TV settings are displayed on the screen.

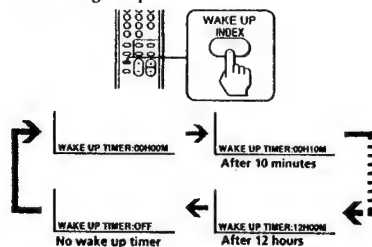


## Setting the Wake Up Timer

You can set the TV to turn on automatically after the period of time you want.

### 1 Press WAKE UP/INDEX repeatedly to set the timer.

The on-screen display appears and the WAKE UP indicator lights up.



### 2 If you want a particular TV program or video input to be displayed using the Wake Up Timer, select the TV program or video mode.

### 3 Press POWER on the remote commander or set the Sleep Timer to turn off the TV in standby mode.

To cancel the Wake Up Timer, press WAKE UP/INDEX repeatedly until "WAKE UP TIMER: OFF" appears, or turn off the main power of the TV.

#### Notes

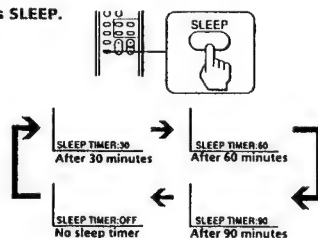
- The Wake Up Timer starts immediately after the on-screen display disappears.

- The last TV program position or video mode just before the TV turns into Standby mode will appear when the TV turns on using the Wake Up Timer.
- If no buttons or controls are pressed for more than two hours after the TV is turned on using the Wake Up Timer, the TV automatically turns into standby mode. When you want to continue watching the TV, press any button or control on the TV or remote commander.

## Setting the Sleep Timer

You can set the TV to turn off automatically after the period of time you want.

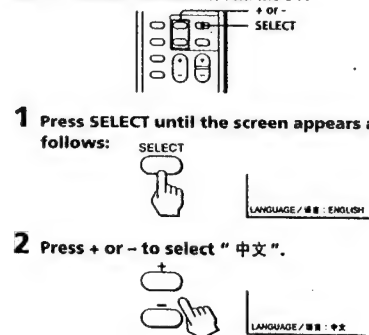
### Press SLEEP.



To cancel the Sleep Timer, press SLEEP repeatedly until "SLEEP TIMER: OFF" appears, or turn the TV off.

## Changing the on-screen display language

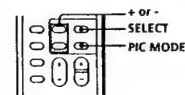
If you prefer Chinese to English, you can change the on-screen display language. You can use buttons on both the remote commander and the TV.



#### Note

- You can also use VOLUME +/- on the TV to select the on-screen display language.

## Adjusting the picture

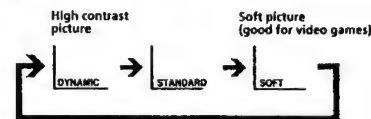


## Selecting the picture mode

Press PIC MODE until the mode you want appears.



Each time you press PIC MODE, the screen changes as follow:



#### Note

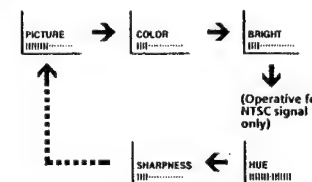
- If you change the picture mode after the following adjustments, the adjustment changes in accordance with the picture mode.

## Adjusting the picture setting

### 1 Press SELECT until the item you want to adjust appears.



Each time you press SELECT, the screen changes as follows:



### 2 Press +/- to adjust the item.



### 3 To adjust other items, repeat steps 1 and 2.

#### Note

- You can also use VOLUME +/- on the TV to adjust the picture setting.

#### If the color of the picture is abnormal

When receiving programs through the ㄗ terminal: Press TV SYSTEM or COLOR SYSTEM or adjust the color setting until the color becomes normal.

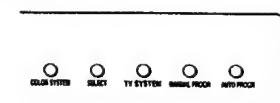
#### Note

- Normally set COLOR SYSTEM to AUTO.

#### If the sound is distorted or noisy

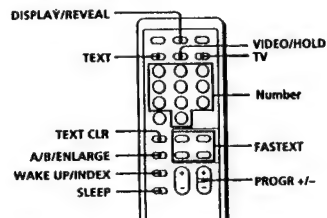
When receiving programs through the ㄗ terminal: Press TV SYSTEM until the sound becomes clear.

#### Front of TV



## Viewing Teletext

### KV-G25M11 only



### Displaying Teletext

- 1 Select a TV channel which carries the Teletext broadcast you want to watch.
- 2 Press TEXT to display the Teletext. A Teletext page is displayed (normally the index page). If there is no Teletext broadcast, 100 is displayed at the top left corner of the screen.

To cancel the Teletext display, press TV.

### Superimposing a Teletext page on the TV picture

Press TEXT. Each time you press TEXT, the screen changes as follows:



### Checking the contents of a Teletext service (INDEX)

Press WAKE UP/INDEX to display an overview of the Teletext contents and page numbers.

### Using FASTEXT

This feature allows you to quickly access a Teletext page that uses FASTEXT. When a FASTEXT page is broadcasted, a color-coded menu appears at the bottom of the screen. The colors of the menu correspond to the RED, GREEN, YELLOW, and CYAN buttons on the remote commander.

Press the color button which corresponds to the color-coded menu. The page is displayed after a few seconds.

### Selecting a Teletext page

To input the three-digit page number of the Teletext page, press the number buttons. If you make a mistake, key in the correct page number again.

To access the next or previous page, press PROGR +/-.

### Holding a Teletext page (subpage)

Press VIDEO/HOLD. The HOLD symbol "CB" is displayed at the top left corner of the screen.

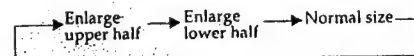
To resume normal Teletext operation, press VIDEO/HOLD again or TEXT.

### Revealing concealed information

Press DISPLAY/REVEAL. To conceal the information, press DISPLAY/REVEAL again.

### Enlarging the Teletext display

Press A/B/ENLARGE. Each time you press A/B/ENLARGE, the Teletext display changes as follows:



### Waiting for a Teletext page while watching a TV program (TEXT CLEAR)

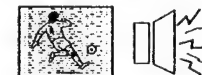
- 1 Key in the page number of the Teletext that you want to refer, then press TEXT CLR.
- 2 When the page number is displayed on the screen, press TEXT to switch the Teletext on.

## Additional Information

## Troubleshooting

If you have any problems, read this manual again and check the countermeasure for each of the symptoms listed below. If the problem persists, contact your nearest authorized service center or dealer.

### Snowy picture Noisy sound



- Check the antenna.
- Check the antenna connection on the TV and on the wall.
- Check the TV SYSTEM setting.

### Dotted lines or stripes



- This may be caused by local interference (e.g. cars, neon signs, hair dryers, etc.). Adjust the antenna for minimum interference.

### Double images or "ghosts"



- This may be caused by reflections from nearby mountains or buildings. A highly directional antenna may improve the picture.

### Note on the remote commander

- The supplied remote commander is used on several models of the TV. If you do not find instructions for some controls that are on the remote commander, that means your TV does not employ the features of those controls, e.g. TEXT.

### Good picture Noisy sound



- Check the TV SYSTEM setting.

### No picture No sound



- Press POWER.
- Check the antenna connection.
- Check the VCR connections.
- Check the power cord connection.
- Check the standby mode.

### Good picture No sound



- Press VOLUME +
- Press MUTING.

### No color



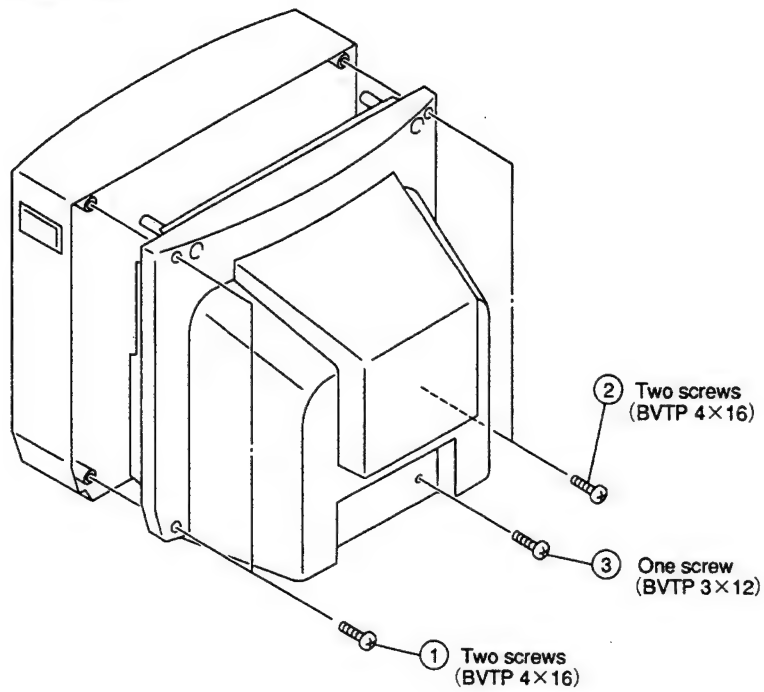
- Adjust the COLOR level in the on-screen display.
- Check the COLOR SYSTEM setting.

### TV cabinet creaks

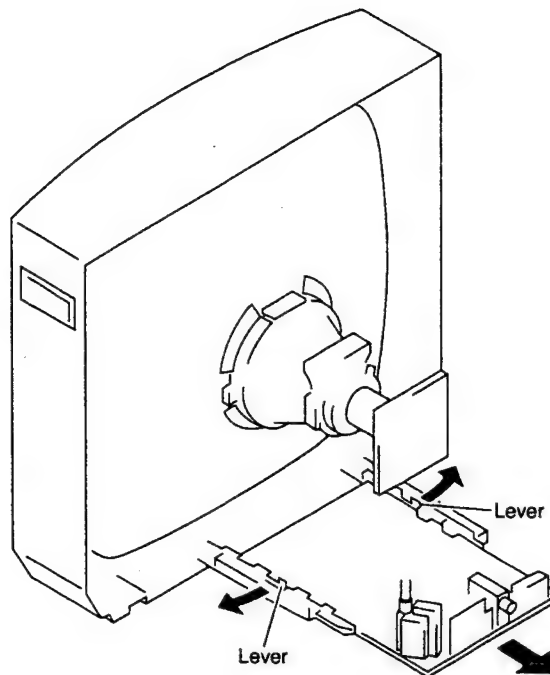
- Even if the picture or the sound is normal, changes in the room temperature sometimes make the TV cabinet expand or contract, making a noise. This does not indicate a malfunction.

## SECTION 2 DISASSEMBLY

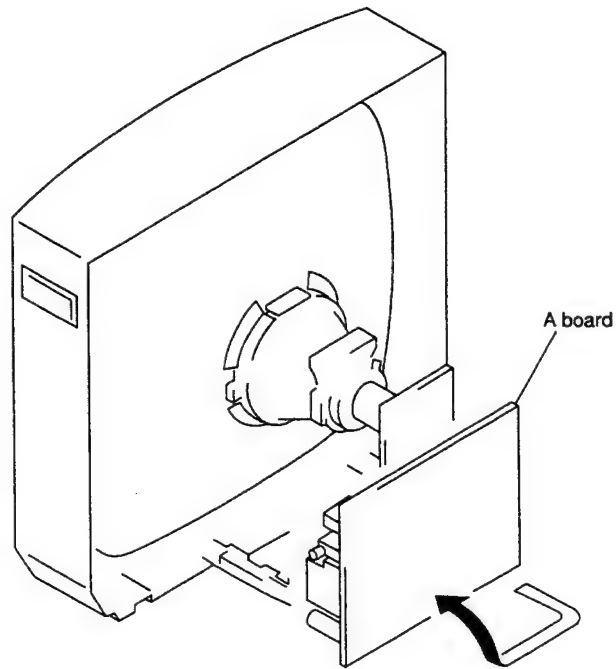
### 1. REAR COVER REMOVAL



### 2. A BOARD REMOVAL



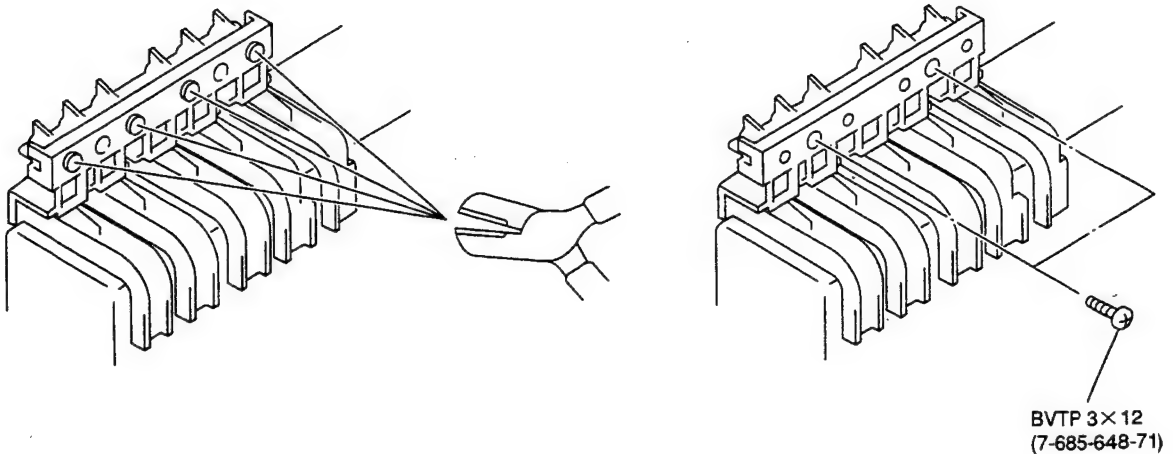
## 2-3. SERVICE POSITION



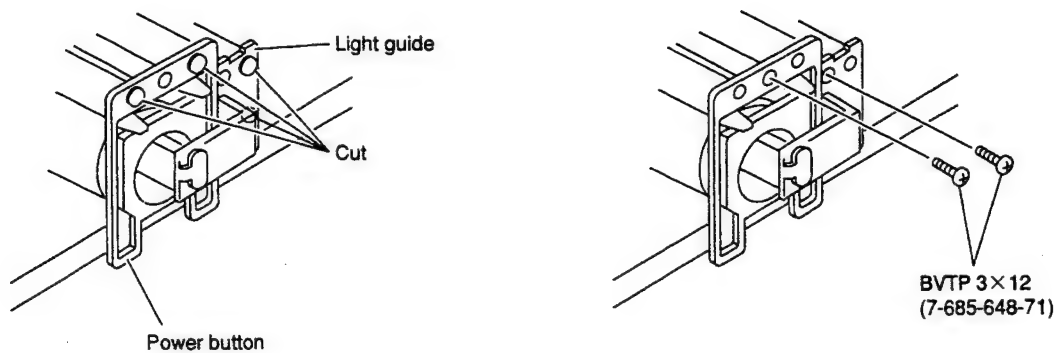
## 2-4. REPLACEMENT OF PARTS

For replacement of the Multi Button, Power Button and Light Guide, cut the welded portions from them, exchange with the new parts, and fix them with screws (+BVTP) respectively.

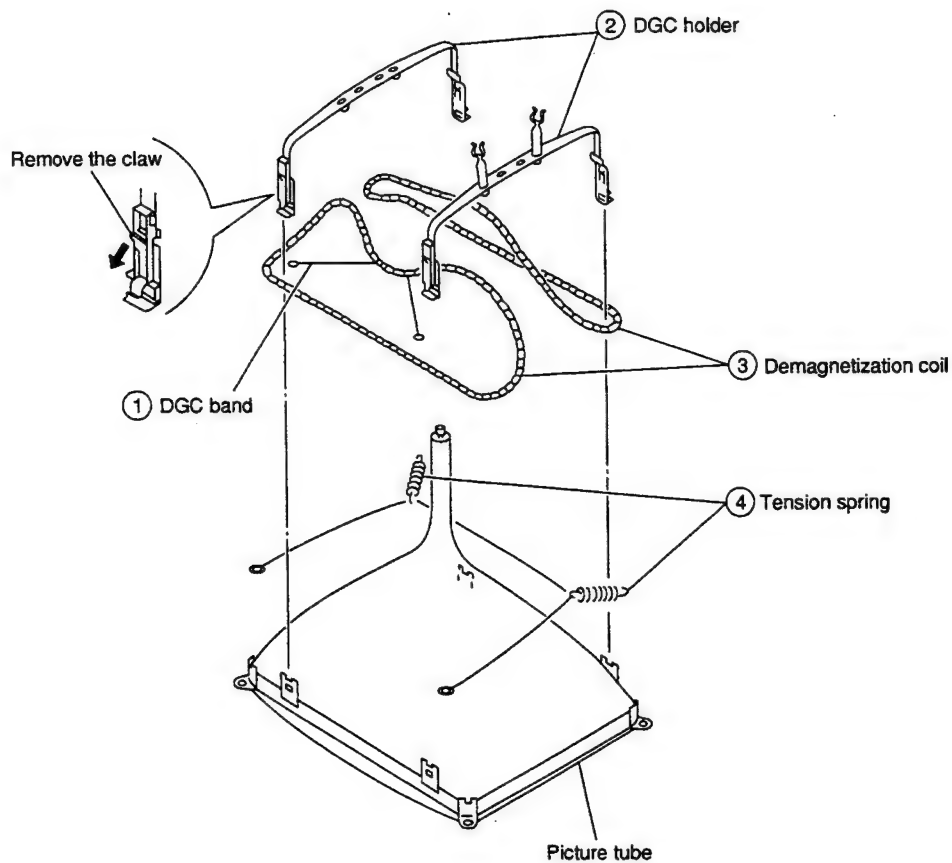
### 2-4-1. REPLACEMENT OF MULTI BUTTON



#### 4-2. REPLACEMENT OF LIGHT GUIDE, POWER BUTTON

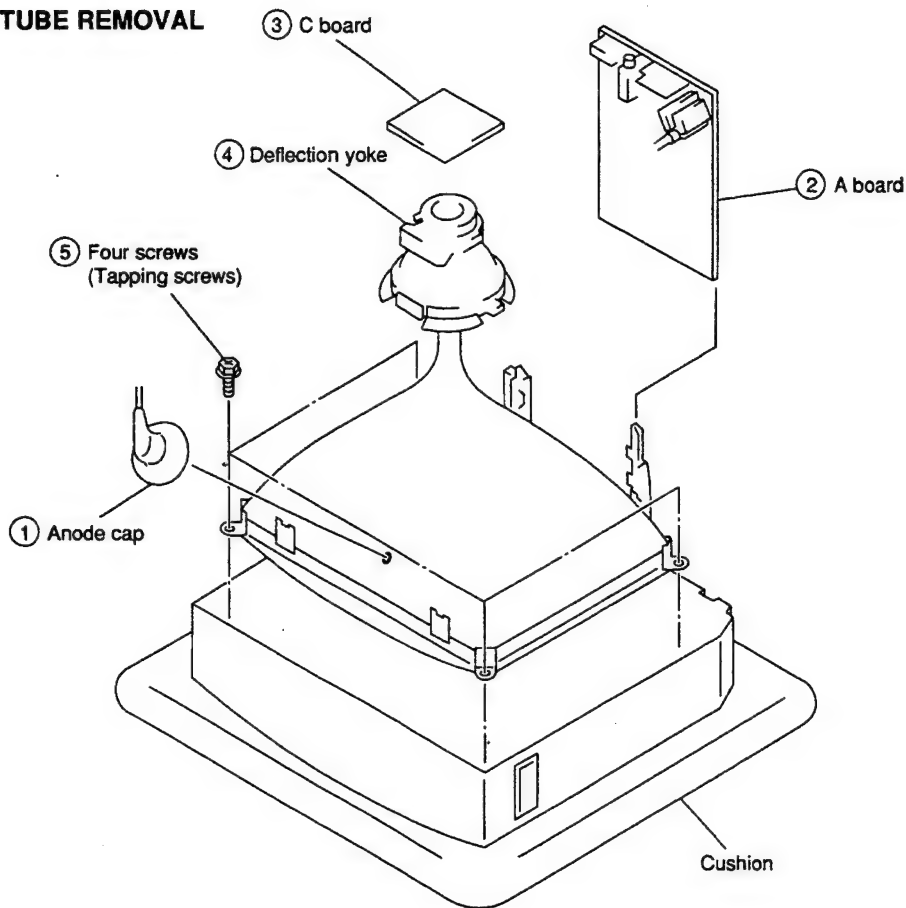


#### 2-5. DEMAGNETIZATION COIL REMOVAL





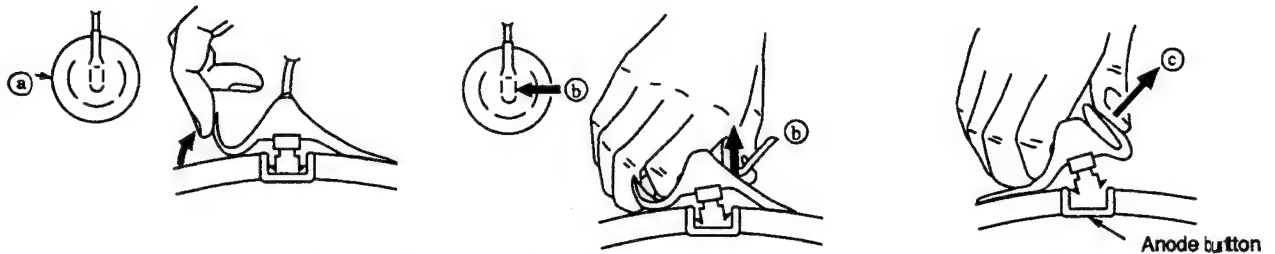
## 2-6. PICTURE TUBE REMOVAL



### • REMOVAL OF ANODE-CAP

NOTE : Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

### • REMOVING PROCEDURES



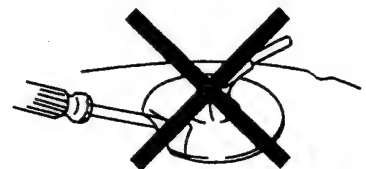
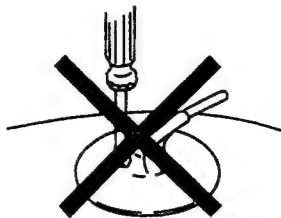
① Turn up one side of the rubber cap in the direction indicated by the arrow (a).

② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow (b).

③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow (c).

### • HOW TO HANDLE AN ANODE-CAP

- ① Don't hurt the surface of anode-caps with sharp shaped material
- ② Don't press the rubber hardly not to hurt inside of anode-caps!  
A material fitting called as shatter-hook terminal is built in the rubber.
- ③ Don't turn the foot of rubber over hardly!  
The shatter-hook terminal will stick out or hurt the rubber.



# SECTION 3 SET-UP ADJUSTMENTS

The following adjustments should be made when a complete realignment is required or a new picture tube is installed.

- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switch should be set as follows unless otherwise noted :

PICTURE control..... normal  
BRIGHTNESS control..... normal

## Preparations :

- In order to reduce the influence of geomagnetism on the set's picture tube face it east or west.
- Switch on the set's power and degauss with the degausser.

## 3-1. BEAM LANDING

1. Input the white signal with the pattern generator.  
Contrast } normal  
Brightness }
2. Set the pattern generator raster signal to green.
3. Move the deflection yoke to the rear and adjust with the purity control so that the green is at the center and the blue and the red take up equally sized areas on each side.  
(See Figures 3-1 through 3-3.)
4. Move the deflection yoke forward and adjust so that entire screen is green. (See Figure 3-1.)
5. Switch the raster signal to blue, then to red and verify the condition.
6. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.  
If the beam does not land correctly in all the corners, use a magnet to adjust it.  
(See Figure 3-4.)

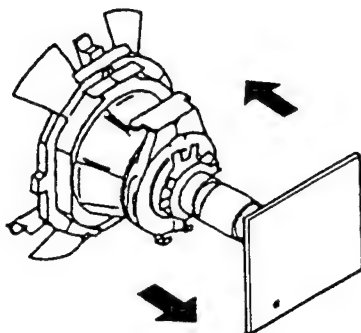


Fig. 3-1

Perform the adjustments in order as follows :

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

Note : Test Equipment Required.

1. Color-bar/Pattern Generator
2. Degausser
3. Oscilloscope

Purity control

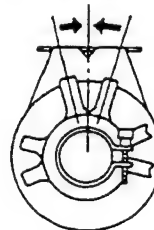


Fig. 3-2

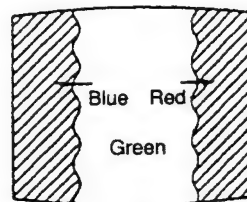


Fig. 3-3

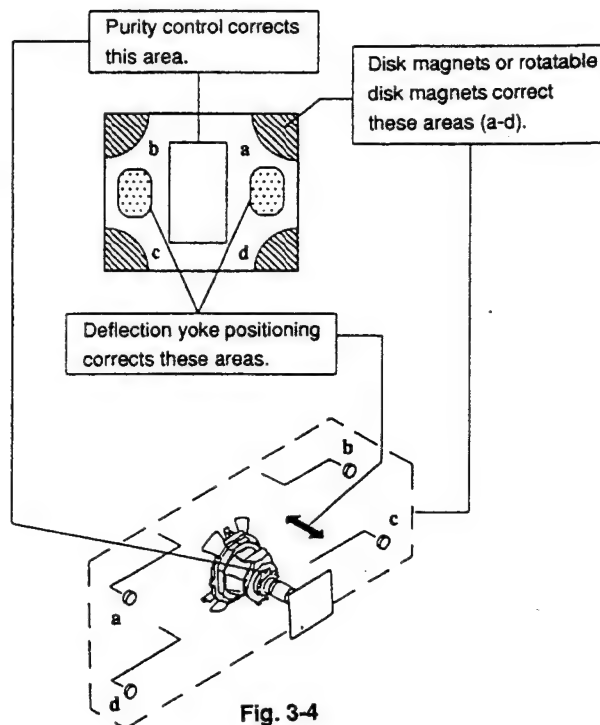


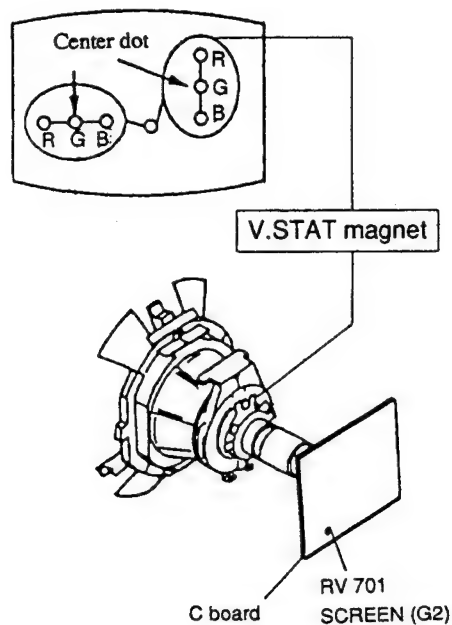
Fig. 3-4

### 3-2. CONVERGENCE

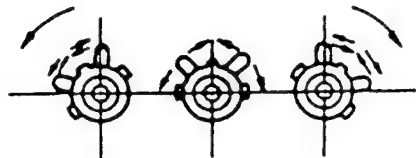
#### Preparations :

- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

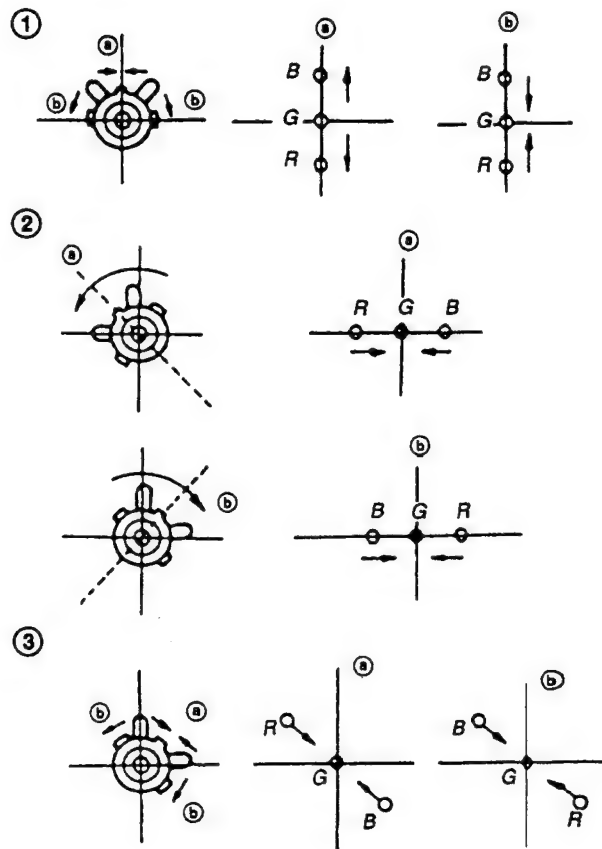
#### (1) Horizontal and Vertical Static Convergence



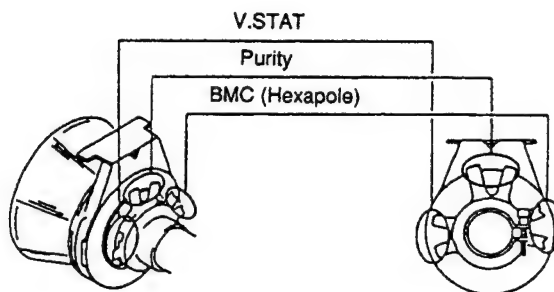
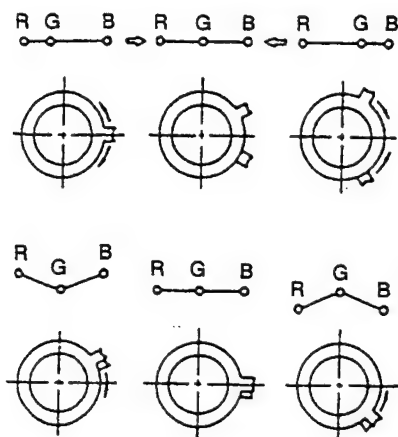
1. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
  2. (Moving horizontally), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



3. If the V.STAT magnet is moved in the direction of the (a) and (b) arrows, the red, green, and blue points move as shown below.



### Operation of BMC (Hexapole) Magnet.

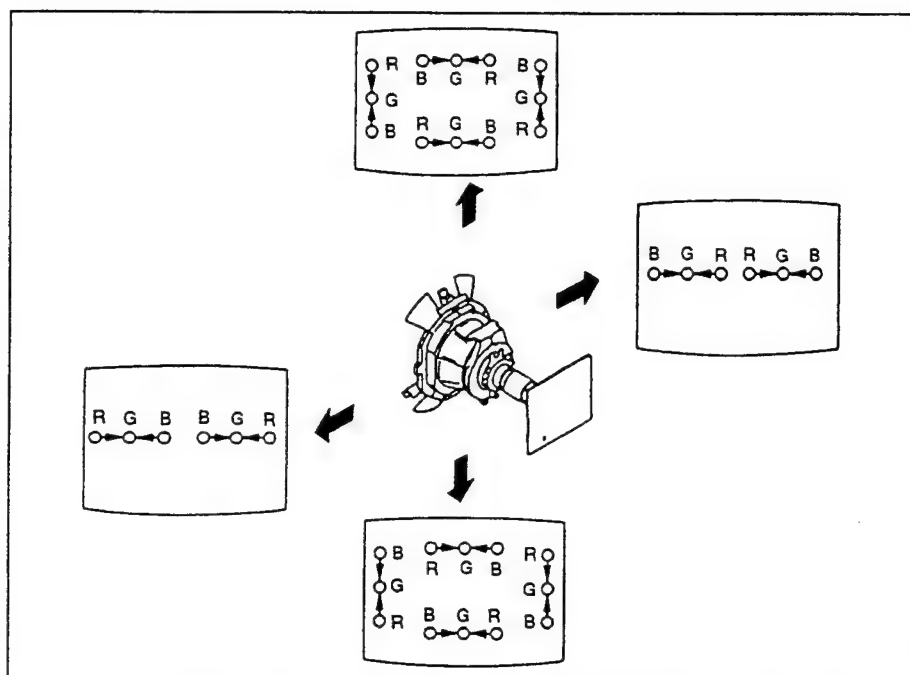


- The respective dot positions resulting from moving each magnet interact, so be sure to perform adjustment while tracking. Use the V.STAT magnet to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).

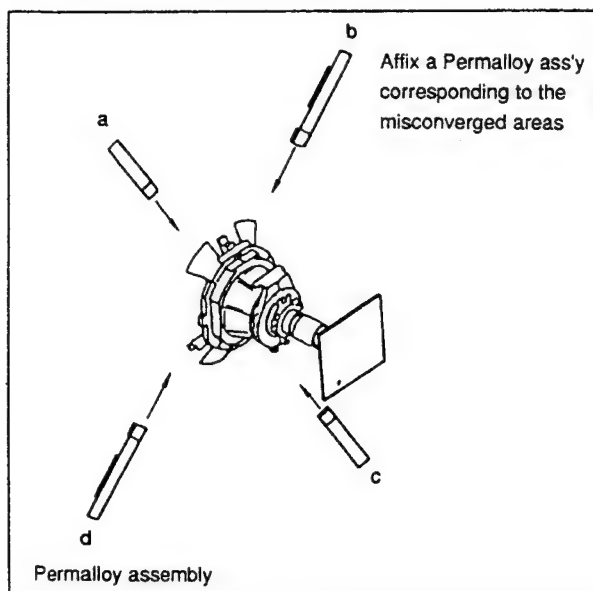
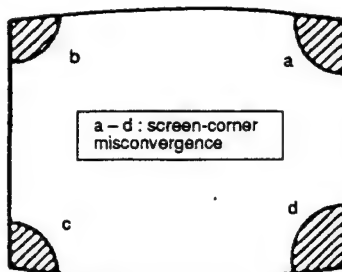
### Dynamic Convergence Adjustment

#### Preparations :

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.
1. Slightly loosen the deflection yoke screws.
  2. Remove the deflection yoke spacer.
  3. Move the deflection yoke as shown in the figure below and optimize the convergence.
  4. Tighten the deflection yoke screws.
  5. Install the deflection yoke spacer.

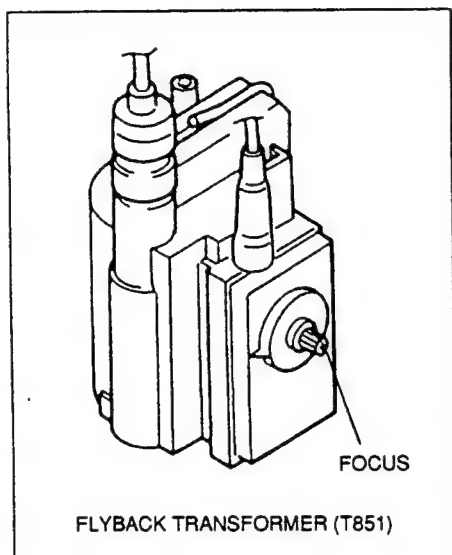


### (3) Screen-corner Convergence



### 3-3. FOCUS ADJUSTMENT

Adjust FOCUS control on the flyback transformer for a best focus.



### a. AN ITEM OF ADJUSTMENT

item number	Adjustment item	Initial DATA	Note
09	RDR	25	WHITE POINT R
0A	GDR	20	WHITE POINT G
0B	BDR	20	WHITE POINT B

### b. METHOD OF CANCELLATION FROM SERVICE MODE

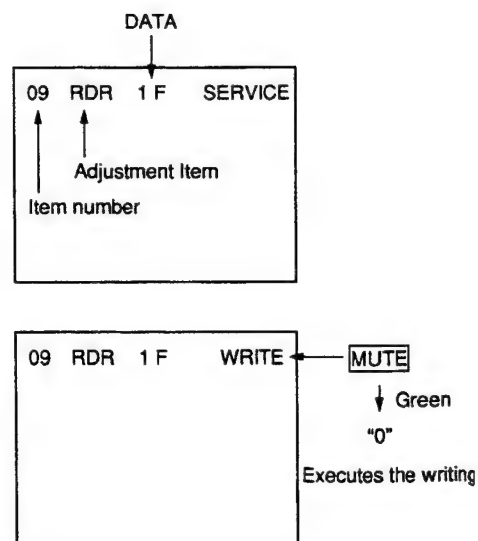
Set the standby condition (Press **POWER** button on the commander) in the next place, press **POWER** button again, hereupon it becomes TV mode.

### c. METHOD OF WRITE FOR MEMORY

- 1) Set to Service Mode.
- 2) Press **1** (UP) and **4** (DOWN), select an item of adjustments.
- 3) Press **MUTE** button indicate WRITE (Green) on screen.
- 4) Press **0** button to write into memory.

### d. MEMORY WRITE CONFIRMATION METHOD

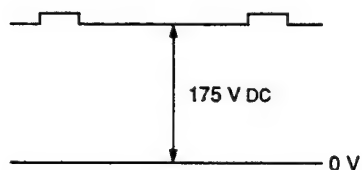
- 1) After adjustment, pull out the plug from AC outlet, and next place, plug in AC outlet again.
- 2) Turn the power switch ON and set to Service Mode.
- 3) Call the adjusted items again, confirm they were adjusted.



#### 4. G2 (SCREEN) AND WHITE BALANCE ADJUSTMENTS

##### 1. G2 (SCREEN) ADJUSTMENT (RV701)

- 1) Set the PICTURE and BRIGHTNESS to normal.
- 2) Put to VIDEO input mode without signals.
- 3) Connect R, G, and B of the C board cathode to the oscilloscope.
- 4) Adjust G2 (RV701) volume to the value below.



##### 2. WHITE BALANCE ADJUSTMENTS

- 1) Set the Service Mode.
- 2) Input an entire white signal.
- 3) Set the PICTURE to maximum.
- 4) Select RDR(09) with **[1]** and **[4]**, and then set the level to 25 with **[3]** and **[6]**.
- 5) Select GDR(0A) and BDR(0B) with **[1]** and **[4]** and adjust the level with **[3]** and **[6]** for the best white balance.
- 6) Write into the memory by pressing **[MUTE]** → then **[0]**.

## SECTION 4

### CIRCUIT ADJUSTMENTS

#### 4-1. ADJUSTMENTS WITH COMMANDER

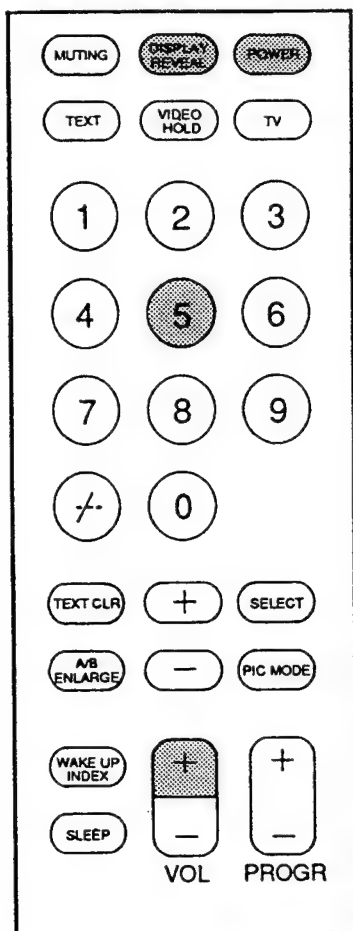
Service adjustments are made with the RM-870 that comes with this unit.

##### Entering service mode

With the unit on standby

↓  
 "DISPLAY"  
 ↓  
 "5"  
 ↓  
 "VOL (+)"  
 ↓  
 "POWER"

The operation sequence puts the unit into service mode.

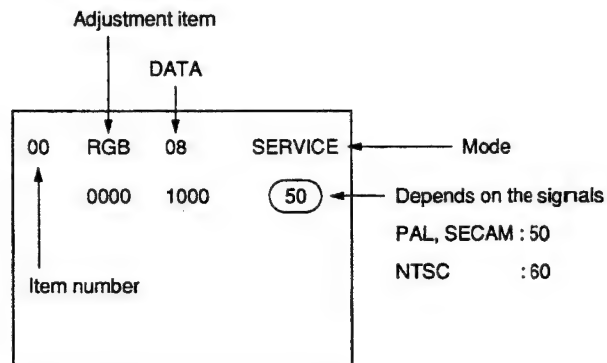


RM-870

"1", "4"	Raise/lower the service item number
"3", "6"	Raise/lower the data
"MUTING"	Writes
"0"	Executes the writing

"7", "0"	The data all becomes the values in memory
"8", "0"	User control all goes to the standard state
"5", "0"	Service data initialization (Besure not to use usually.)
"2", "0"	Write 50Hz adjustment data to 60Hz, or viceversa.

The screen display is :



"1", "4"	Select the adjustment item.
↓	
"3", "6"	Raise/lower the data.
↓	
"MUTING"	Writes
↓	
"0"	Executes the writing.

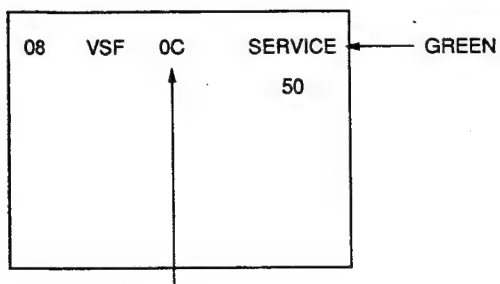
## 4-2. ADJUSTMENT METHOD

### Item Number 08

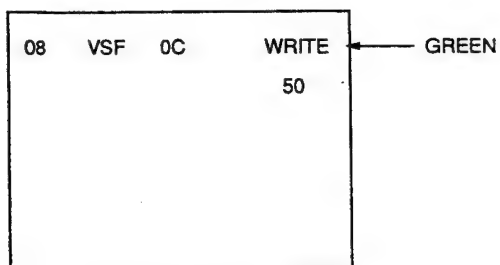
This explanation uses V-SHIFT as an example.

1. Select 08 V-SHIFT with the "1" and "4" buttons.
2. Raise/lower the data with the "3" and "6" buttons.
3. Select the optimum state. (The standard is for 0F PAL reception.)
4. Write with the MUTE button.
5. Execute the writing with the "0" button. (The WRITE display.)

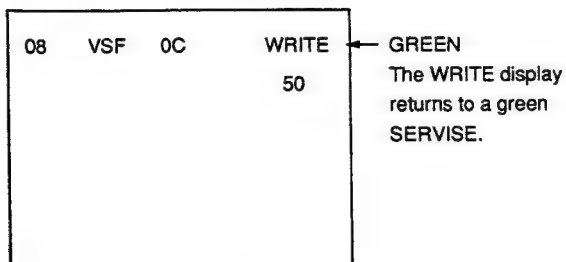
Use the same method for Items Number 00-40. Use "1" and "4" to select the adjustment item, use "3" and "6" to adjust, write with "MUTE", then execute the write with "0".



Adjusted with "3" and "6" buttons



Written with "MUTE"



Write executed with "0"



Adjustment Item Table

Item number	Adjustment Item	Data range	Initial data	Standard data		Note	Device
00	HSF	00~3F	24	50: 21	60: 26	H SHIFT	(TDA8366)
01	HSZ	00~3F	23	50: 27	60: 28	H SIZE	(TDA8366)
02	PAP	00~3F	21	50: 25	60: 25	PIN AMPLITUDE	(TDA8366)
03	CNP	00~3F	29	50: 2D	60: 2F	CORNER PIN	(TDA8366)
04	TLT	00~3F	20	50: 24	60: 20	TILT	(TDA8366)
05	VSL	00~3F	20	50: 21	60: 21	V SLOPE	(TDA8366)
06	VAP	00~3F	1D	50: 3E	60: 3F	V AMPLITUDE	(TDA8366)
07	SCR	00~3F	20	50: 29	60: 29	S CORRECTION	(TDA8366)
08	VSF	00~3F	20	50: 39	60: 3A	V SHIFT	(TDA8366)
09	RDR	00~3F	25	25 (Fix)		WHITE POINT R	(TDA8366)
0A	GDR	00~3F	20	20		WHITE POINT G	(TDA8366)
0B	BDR	00~3F	20	20		WHITE POINT B	(TDA8366)
0C	YDL	00~0F	00	00		Y DELAY ADJUSTMENT	(TDA8366)
0D	FO	00~02	00	TV: 00	VIDEO: 00	PHI-1TIME CONSTANT	(TDA8366)
0E	AGC	00~3F	06	TV: 06	VIDEO: 06	AGC TAKE OVER	(TDA8366)
0F	VSW	00~01	01	TV: 00	VIDEO: 01	VIDEO MUTE	(TDA8366)
10	FOR	00~03	00	0		FORCED FIELD FREQ.	(TDA8366)
11	DL	00~01	00	0		INTERLACE	(TDA8366)
12	POC	00~01	00	0		SYNCHRONISATION	(TDA8366)
13	NCI	00~01	00	50: 00	60: 00	V DIVIDER MODE	(TDA8366)
14	VID	00~01	00	50: 00	60: 00	VIDEO IDENT MODE	(TDA8366)
15	HCO	00~01	00	50: 00	60: 00	EHT TRACKING MODE	(TDA8366)
16	EVG	00~01	00	50: 00	60: 00	ENABLE V GUARD	(TDA8366)
17	SBL	00~01	00	50: 00	60: 00	SERVICE BLANKING	(TDA8366)
18	PRD	00~01	00	50: 00	60: 00	OVER-VOLTAGE INPUT	(TDA8366)
19	EXP	00~03	00	00		V DEFLECTION MODE	(TDA8366)
1A	SFM	00~01	01	01		H FREQ. DURING SWON	(TDA8366)
1B	PHL	00~01	00	00		COLOR X-TAL PLL	(TDA8366)
1C	COR	00~01	00	00		NOISE CORING PEAK	(TDA8366)
1D	PMX	00~3F	20	20		PICTURE MAX DATA	(TDA8366)
1E	SBR	00~7F	4B	53		SUB-BRIGHTNESS	(TDA8366)
1F	SHU	00~0F	07	07		SUB-HUE	(TDA8366)
20	SSH	00~03	01	TV: 01	VIDEO: 03	SUB-SHARPNESS	(TDA8366)
21	SCL	00~3F	3F	50: 3F	60: 3F	SUB-COLOR	(TDA8366)
22	TXP	00~0F	09	09		Text Picture cont.	(SAA52B1)
23	MXP	00~0F	0B	0B		Text Mix mode Pic.	(SAA52B1)
24	ODL	00~FF	10	10		Power ON Delay	(CXP85200)
25	OFR	00~0F	00	00		Remo. con. RGB OUT	(CXP85200)
26	OFM	00~0F	00	00		Main power RGB OUT	(CXP85200)
27	OSH	00~3F	0A	06		OSD Position H	(CXP85200)
28	MUT	00~01	01	00		No Sync. Mute	(CXP85200)
29	ABL	00~01	01	01		Bright ABL	(CXP85200)
2A	OP0	00~FF	40	2B		Option 0	(CXP85200)
2B	OP1	00~FF	07	07		Option 1	(CXP85200)

※ 50 ... 50Hz data 60 ... 60Hz data

※ Standard data listed on the Adjustment Item Table are reference values, therefore differ per model.

No 2A OP0 \* Input data are different according to models.

-	AV Input		-	-	-	-	Saudi
0	0	1	0	0	0	0	0

No 2B OP1

-	-	-	TV System		NTSC	SECAM	Chin
0	0	0	0	0	1	1	1

### 4-3. A BOARD, ADJUSTMENT AFTER IC003 (MEMORY) REPLACEMENT

1. Enter to Service Mode.
2. Press commander buttons "5" and "0" (Data Initialize), and "2" and "0" (Data Copy) to initialize the data.
3. Call each item number, and check if the respective screen shows the normal picture.  
In case some items are not well-adjusted, give them fine adjustment.  
Write the data per each item number (MUTE + 0).
4. Select item numbers "2A" (OP0) and "2B" (OP1) for mono, and 3F (OP0) and "40" (OP1) for STEREO, and respectively set the bit per model with command buttons "3" and "6".
5. Press commander buttons "8" and "0" (Test Normal) to return to the data that was set on the shipment from the factory.  
(= Cancel Service Mode.)

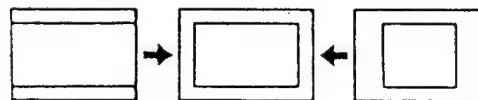
### 4-4. PICTURE DISTORTION ADJUSTMENT

Item Number 00 – 08

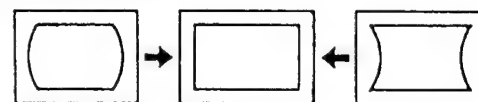
#### 00 HSF (H.SHIFT)



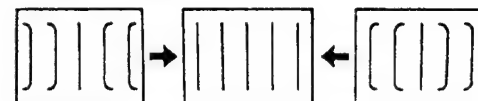
#### 01 HSZ (H SIZE)



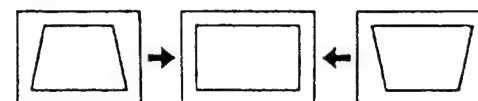
#### 02 PAP (PIN AMP)



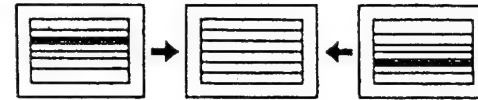
#### 03 CNP (CORNER PIN)



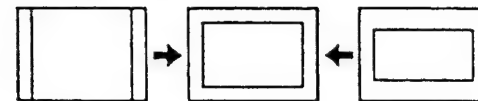
#### 04 TLT (TILT)



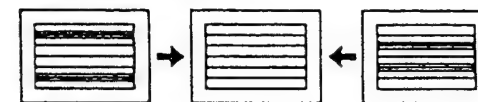
#### 05 VSL (V SLOP)



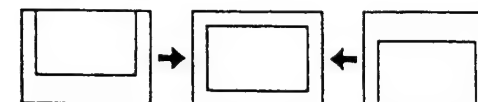
#### 06 VAP (V AMP)



#### 07 SCR (S CORRECTION)

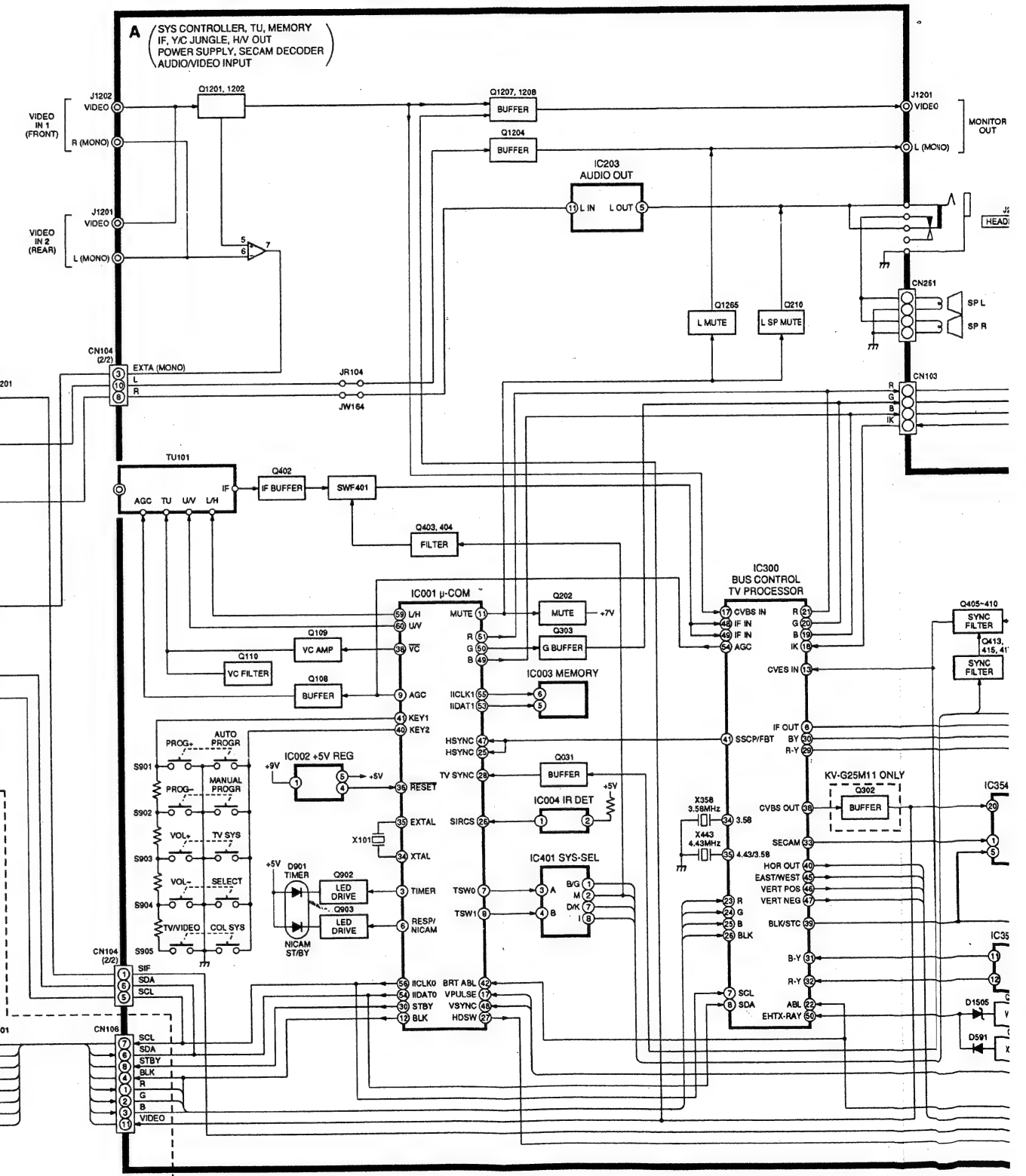
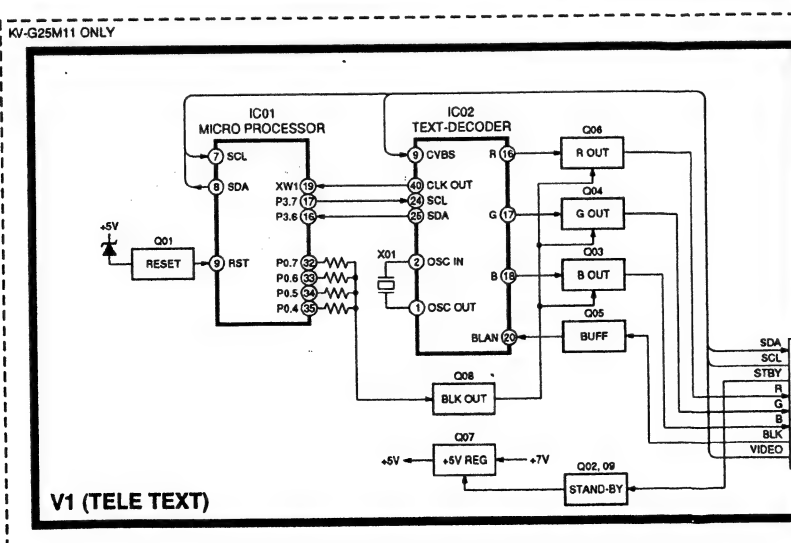
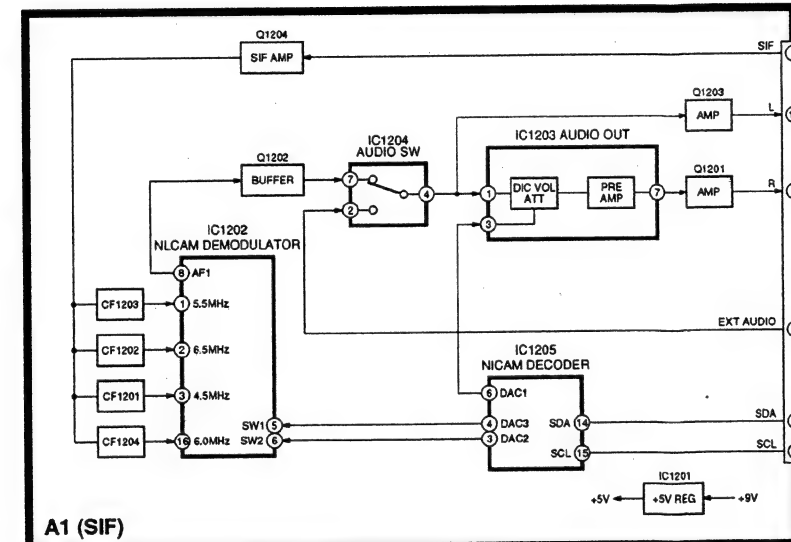


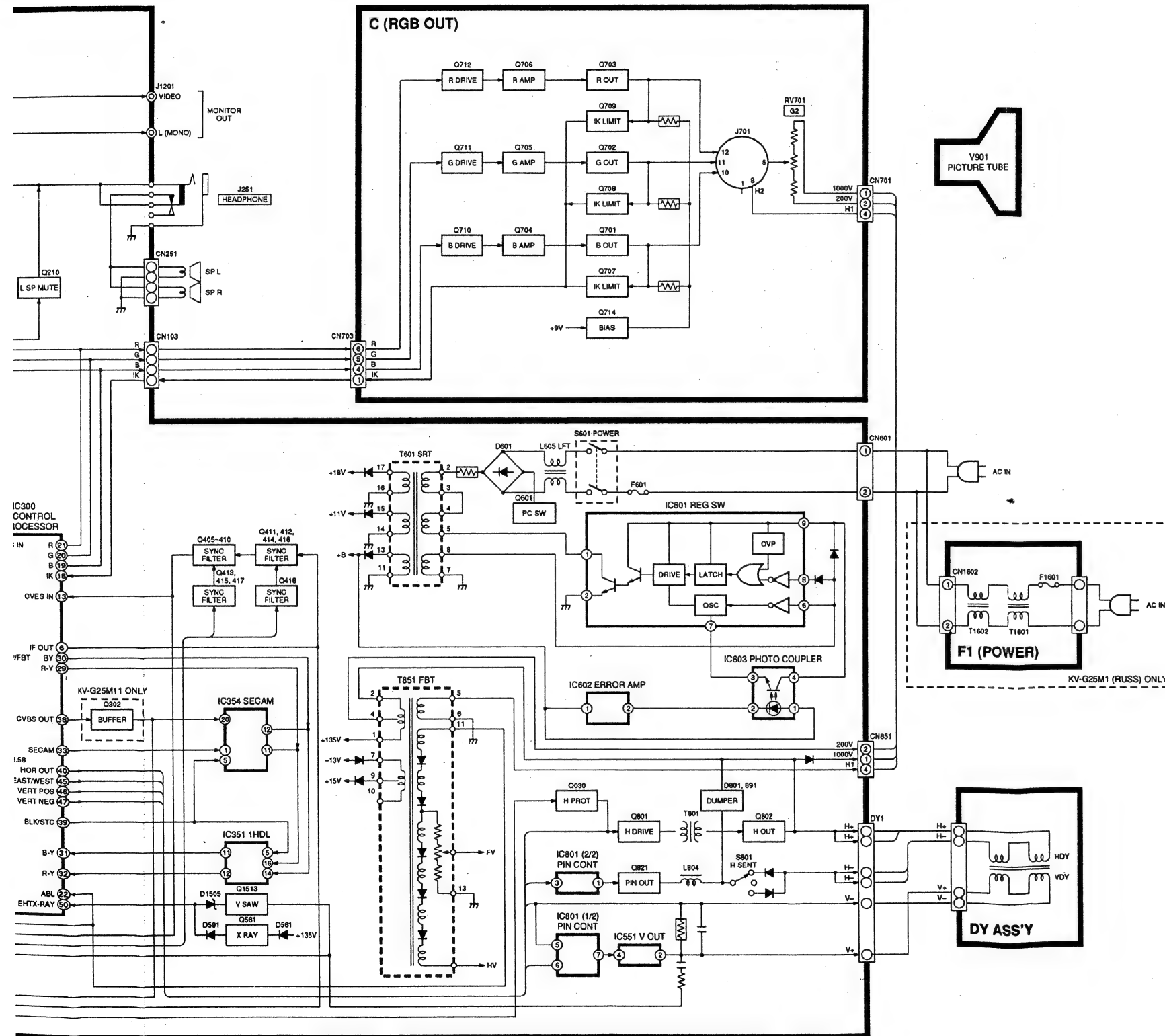
#### 08 VSF (V SHIFT)



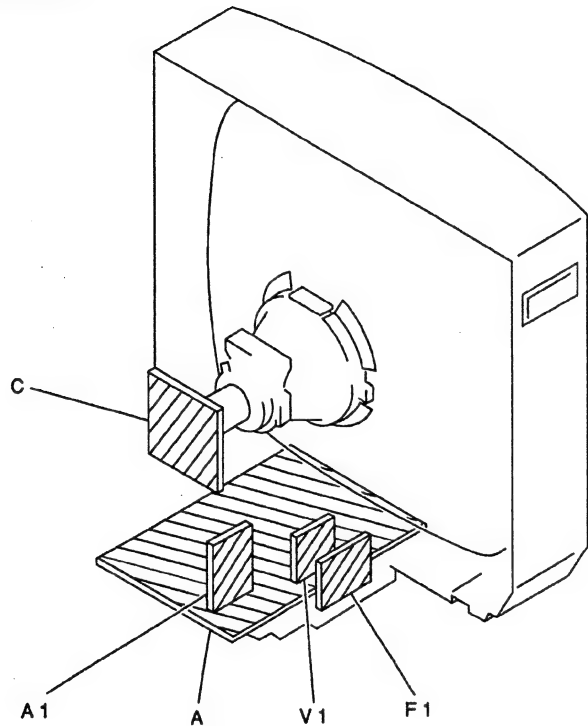
[illegible]

## 5-1. BLOCK DIAGRAMS





5-2. CIRCUIT BOARDS LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- All capacitors are in  $\mu\text{F}$  unless otherwise noted. pF:  $\mu\text{F}$  50 WV or less are not indicated except for electrolytic and tantalums.
- All resistors are in ohms.  
 $k\Omega = 100\Omega$ ,  $M\Omega = 1000k\Omega$
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5 mm  
Rating electrical power 1/4W (CHIP: 1/10W)

- : nonflammable resistor.
- : internal component.
- : panel designation, or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Readings are taken with a color-bar signal input.  
no mark : PAL  
( ) : SECAM  
< > : NTSC 4.43
- Readings are taken with a 10 M $\Omega$  digital multimeter.
- Voltage are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- \* : Can not be measured.
- Circled numbers are waveform reference.
- B + bus.
- - - B - bus.
- : signal path.

Reference Information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFRAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: *	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note: The component identified by shading and mark are critical for safety. Replace only with part number specified.

PRINTED WIRING BOARD

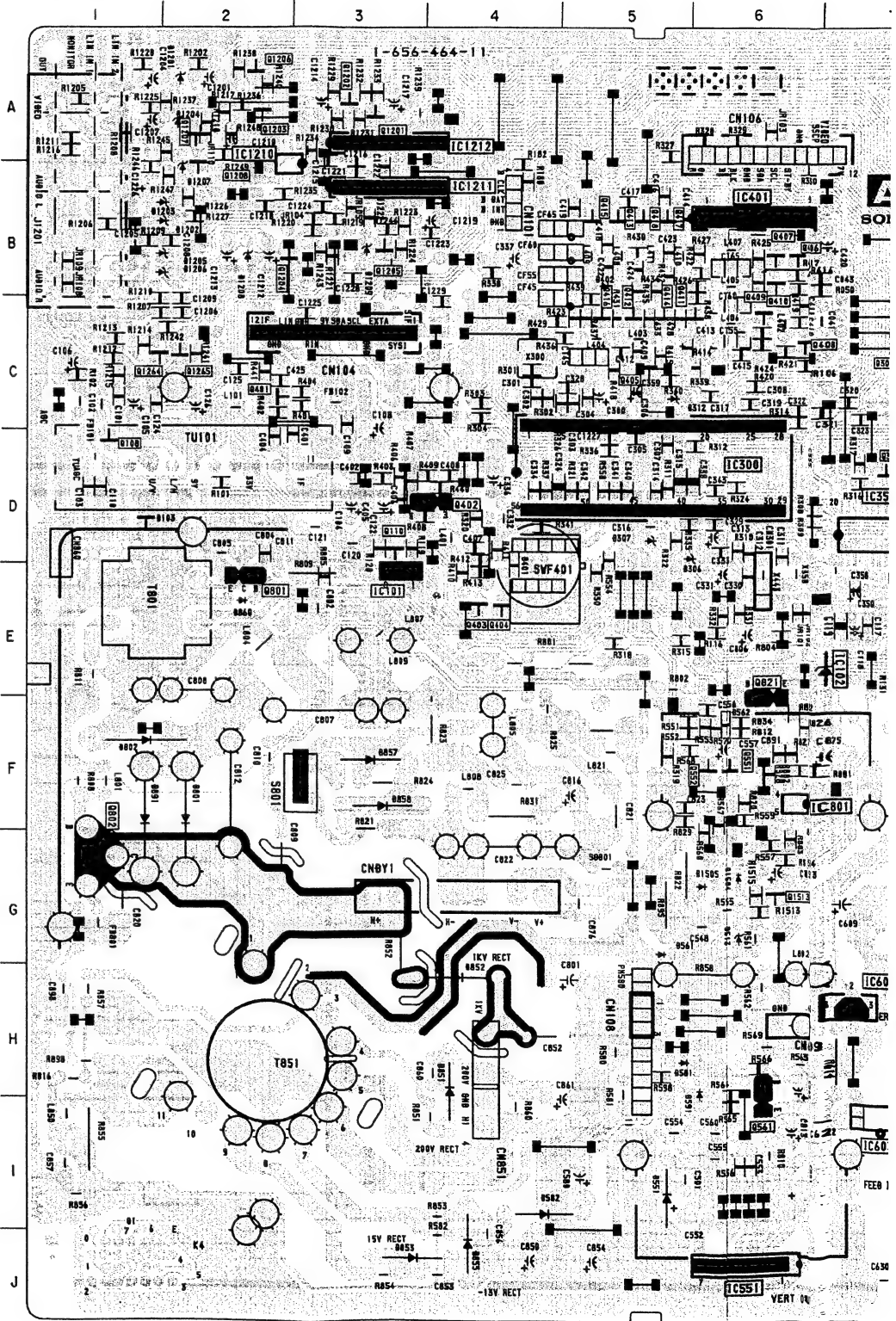
A BOARD

IC		DIODE	
IC001	D-11	D001	D-9
IC002	E-10	D002	C-12
IC003	E-11	D003	C-10
IC004	I-13	D004	E-12
IC102	E-7	D005	E-8
IC203	B-10	D101	B-8
IC300	D-6	D102	B-9
IC351	D-8	D103	D-1
IC354	D-7	D251	B-8
IC401	B-6	D252	B-13
IC521	E-8	D301	C-7
IC551	J-6	D302	D-8
IC601	J-8	D303	D-8
IC602	H-7	D304	C-8
IC603	I-7	D305	D-7
IC801	F-6	D306	D-6
IC1210	A-2	D307	D-5
TRANSISTOR		D308	C-10
		D310	D-8
Q030	C-12	D311	D-8
Q031	C-8	D312	C-5
Q108	D-1	D313	D-8
Q109	E-12	D314	D-8
Q110	D-3	D351	E-8
Q202	B-8	D401	D-4
Q207	B-10	D402	B-5
Q208	B-10	D403	B-9
Q210	B-9	D513	G-6
Q301	C-7	D551	I-5
Q302	D-7	D561	G-5
Q303	C-8	D591	H-6
Q402	D-4	D601	G-11
Q403	E-4	D602	G-11
Q404	E-4	D603	G-11
Q405	C-5	D604	G-8
Q406	B-6	D605	G-8
Q407	B-6	D606	F-9
Q408	C-6	D607	I-8
Q409	C-6	D609	I-9
Q410	B-6	D610	H-7
Q411	C-6	D611	I-8
Q412	C-5	D801	F-2
Q413	B-5	D802	F-1
Q414	C-5	D851	H-4
Q415	B-5	D852	H-4
Q416	C-5	D853	J-3
Q417	B-5	D855	J-4
Q418	B-5	D857	F-3
Q561	I-6	D860	E-2
Q601	G-12	D891	F-1
Q801	E-2	D901	H-13
Q802	G-1	D1201	A-2
Q821	E-6	D1202	B-2
Q902	H-13	D1207	B-2
Q903	H-13	D1208	B-2
Q1201	A-3	D1504	G-6
Q1202	A-3	D1505	G-6
Q1203	A-2		
Q1204	B-2		
Q1207	A-2		

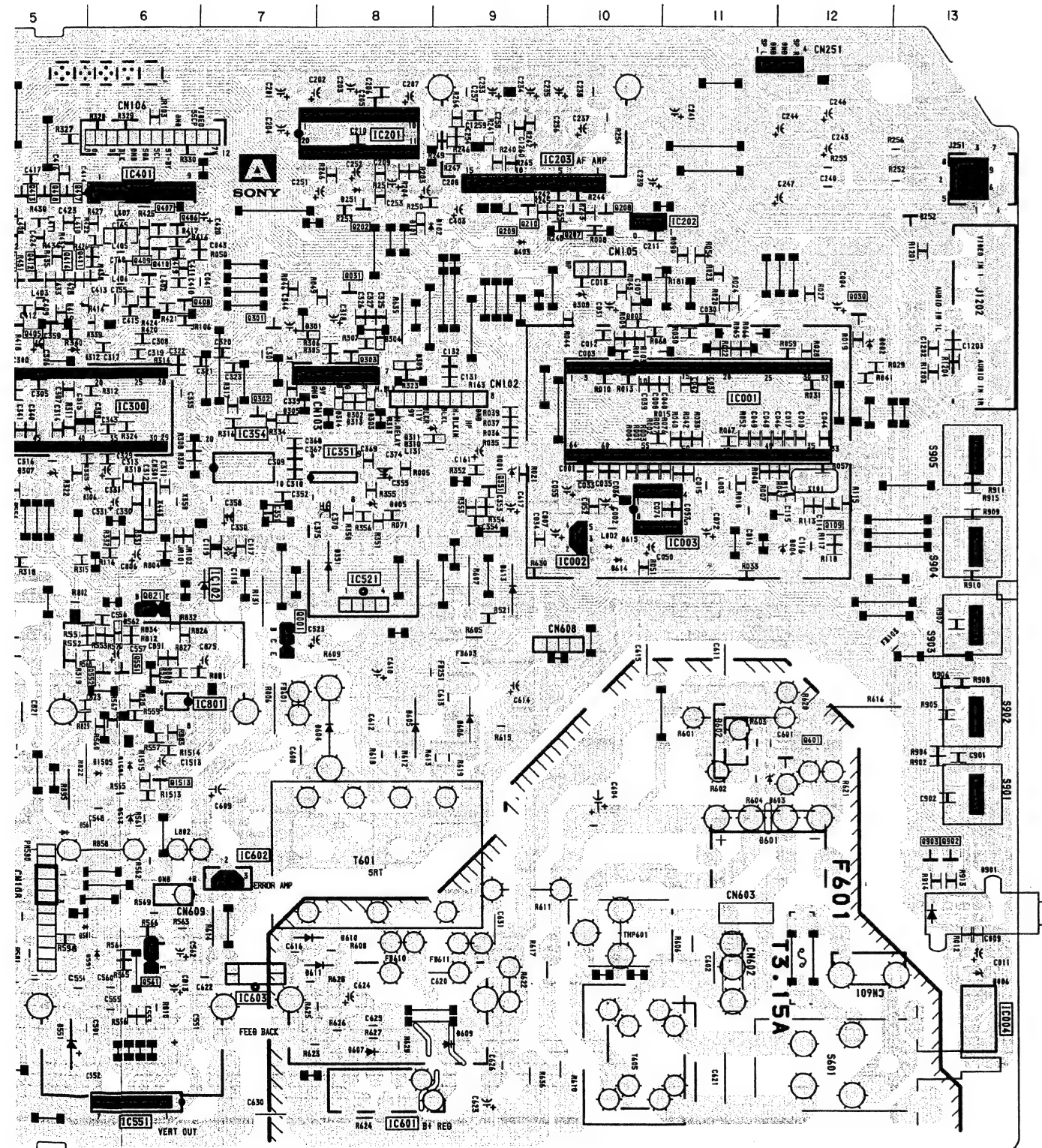
A

[SYS CONTROLLER, TU, MEMORY, IF, Y/C JUNGLE  
H/V OUT, POWER SUPPLY, SECAM DECODER, AUDIO/VIDEO INPUT]

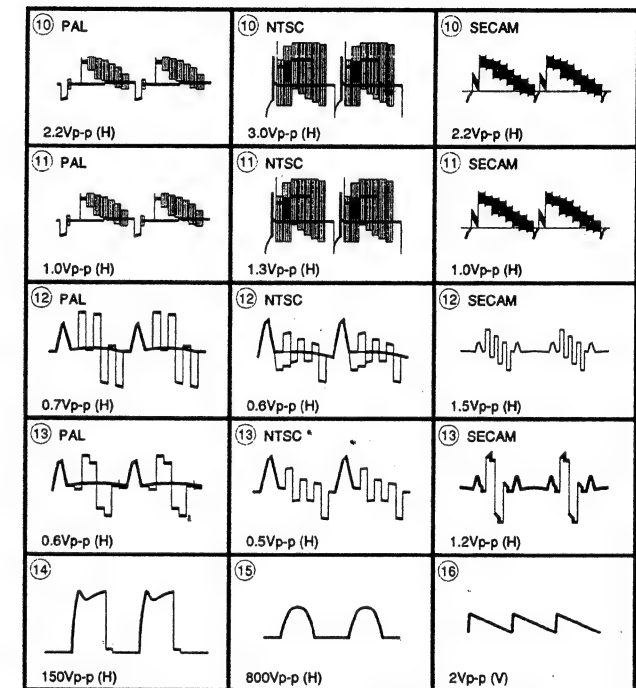
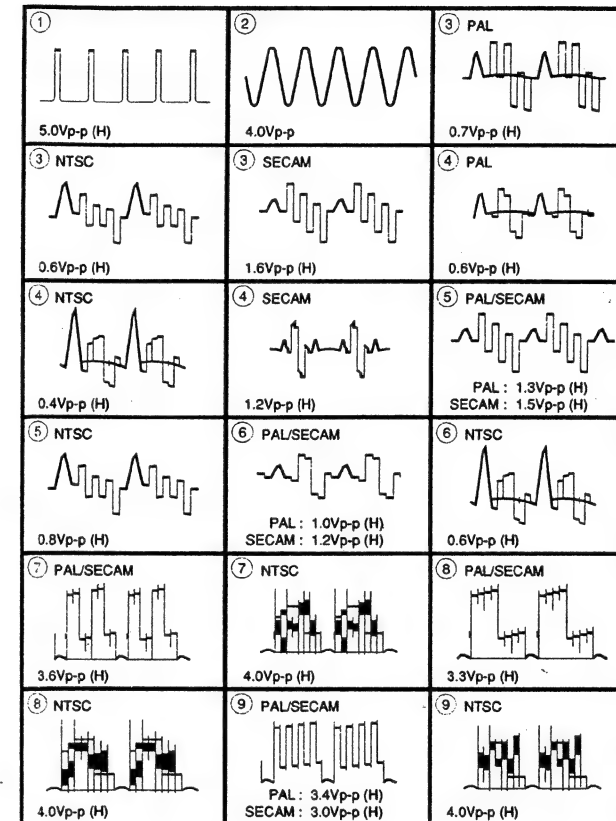
- A Board -





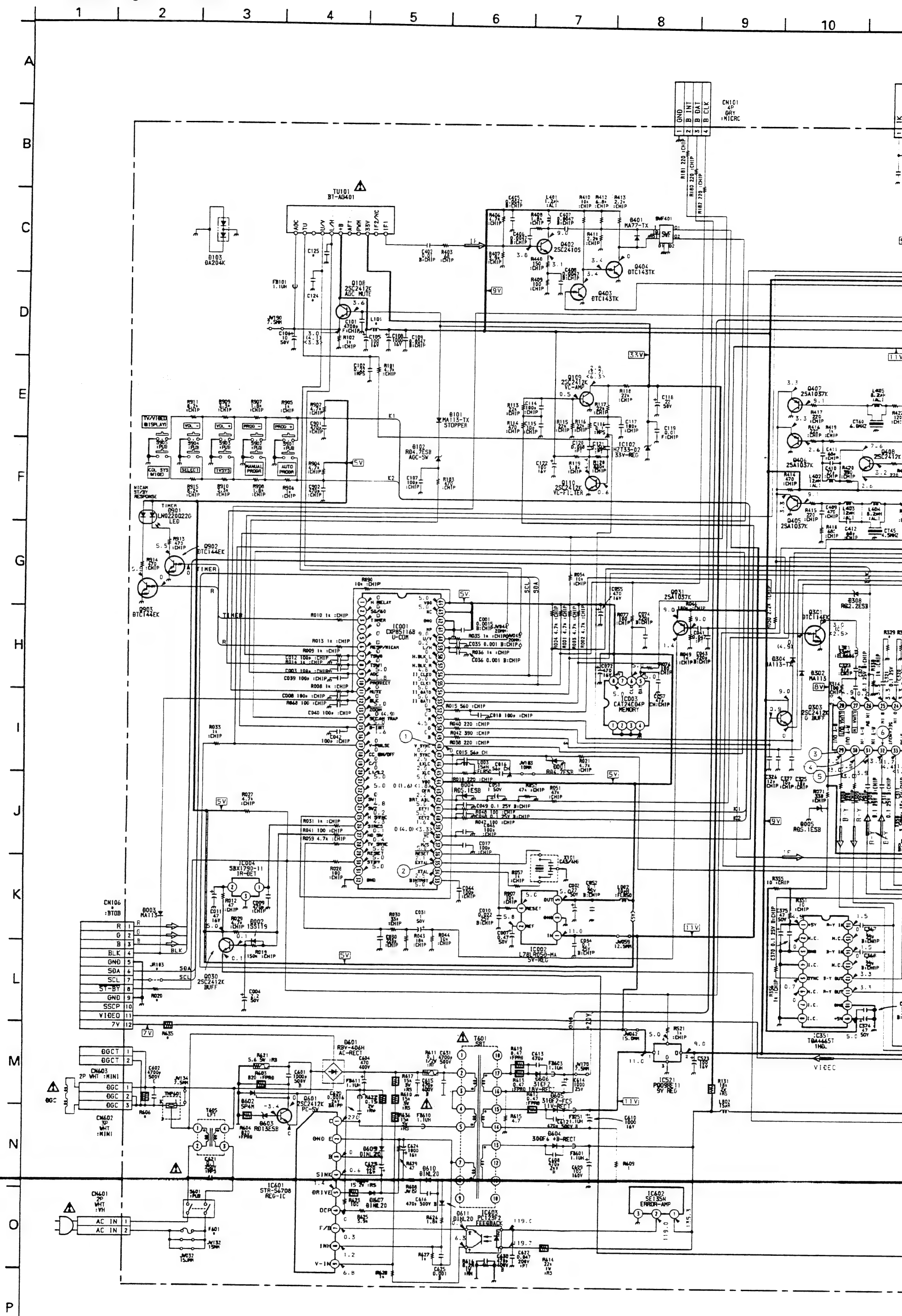


## A BOARD WAVEFORMS



**NOTE:**  
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

(1) Schematic Diagram of A Board









	KV-G25M1(ME)	KV-G25M1(HK)	KV-G25M1(RUSS)	KV-G25M11
CN106	NOT USED	NOT USED	NOT USED	12P :BTOB
CN601	TO POWER CORD	TO POWER CORD	TO F1 BOARD CN1602	TO POWER CORD
F601	T3.15A	T3.15A	NOT USED	T3.15A
FB801	1.1uH	1.1uH	1.9uH	1.1uH
JR103	NOT USED	NOT USED	NOT USED	0 :CHIP
JW032	NOT USED	NOT USED	15MM	NOT USED
JW132	NOT USED	NOT USED	15MM	NOT USED
Q302	NOT USED	NOT USED	NOT USED	2SC2412K
R020	NOT USED	NOT USED	NOT USED	100 :CHIP
R316	NOT USED	NOT USED	NOT USED	4.7K :CHIP
R317	NOT USED	NOT USED	NOT USED	1K :CHIP
R327	0 :CHIP	0 :CHIP	0 :CHIP	100 :CHIP
R328	0 :CHIP	0 :CHIP	0 :CHIP	100 :CHIP
R329	0 :CHIP	0 :CHIP	0 :CHIP	100 :CHIP
R334	NOT USED	NOT USED	NOT USED	470 :CHIP
R552	NOT USED	NOT USED	220K :CHIP	220K :CHIP
R553	NOT USED	NOT USED	0 :CHIP	0 :CHIP
R570	NOT USED	NOT USED	0 :CHIP	0 :CHIP
R635	NOT USED	NOT USED	NOT USED	22 2W :RS

The block diagram of the TDA4665 integrated circuit shows the following components and connections:

- Inputs:**
  - Color-difference input signals:  $\Sigma(R-Y)$  (pin 14) and  $\Sigma(B-Y)$  (pin 15).
  - V.P. (pin 9) - Sync signal.
  - Sandcastle pulse input (pin 5).
  - Digital supply  $V.D.$  (pin 10).
- Internal Blocks:**
  - Signal Clamping:** Two blocks (pins 14 and 15) that clamp the input signals.
  - Pre-amplifiers:** Two blocks that amplify the clamped signals.
  - Line Memory:** Two blocks that store the amplified signals.
  - Sample-and-Hold:** Two blocks that sample the signals from line memory.
  - LP (Low Pass):** Two blocks that filter the sampled signals.
  - Addition Stages:** Two blocks that add the filtered signals.
  - Output Buffers:** Two blocks that buffer the addition stage outputs.
  - Frequency Phase Detector:** A block that receives the sandcastle pulse input.
  - Divider by 182:** A block that divides the frequency phase detector output.
  - Shift/shifting clock:** A block that receives the divider by 182 output.
  - LP (Low Pass):** A block that filters the shift/shifting clock output.
  - Sample-and-Hold:** A block that samples the filtered shift/shifting clock output.
  - Divider by 2:** A block that divides the sampled shift/shifting clock output.
- Outputs:**
  - Color-difference output signals:  $\Sigma(R-Y)$  (pin 11) and  $\Sigma(B-Y)$  (pin 12).
  - Digital supply  $V.D.$  (pin 3).
- Other Labels:**
  - TDA4665:** The integrated circuit identifier.
  - GROUND:** Labels for pins 1, 2, 4, 6, 7, 8, and 9.

[illegible]

A horizontal number line with 11 segments, numbered 1 through 11 from left to right. The segments are separated by vertical tick marks.



①	② BAL SECAM
---	-------------

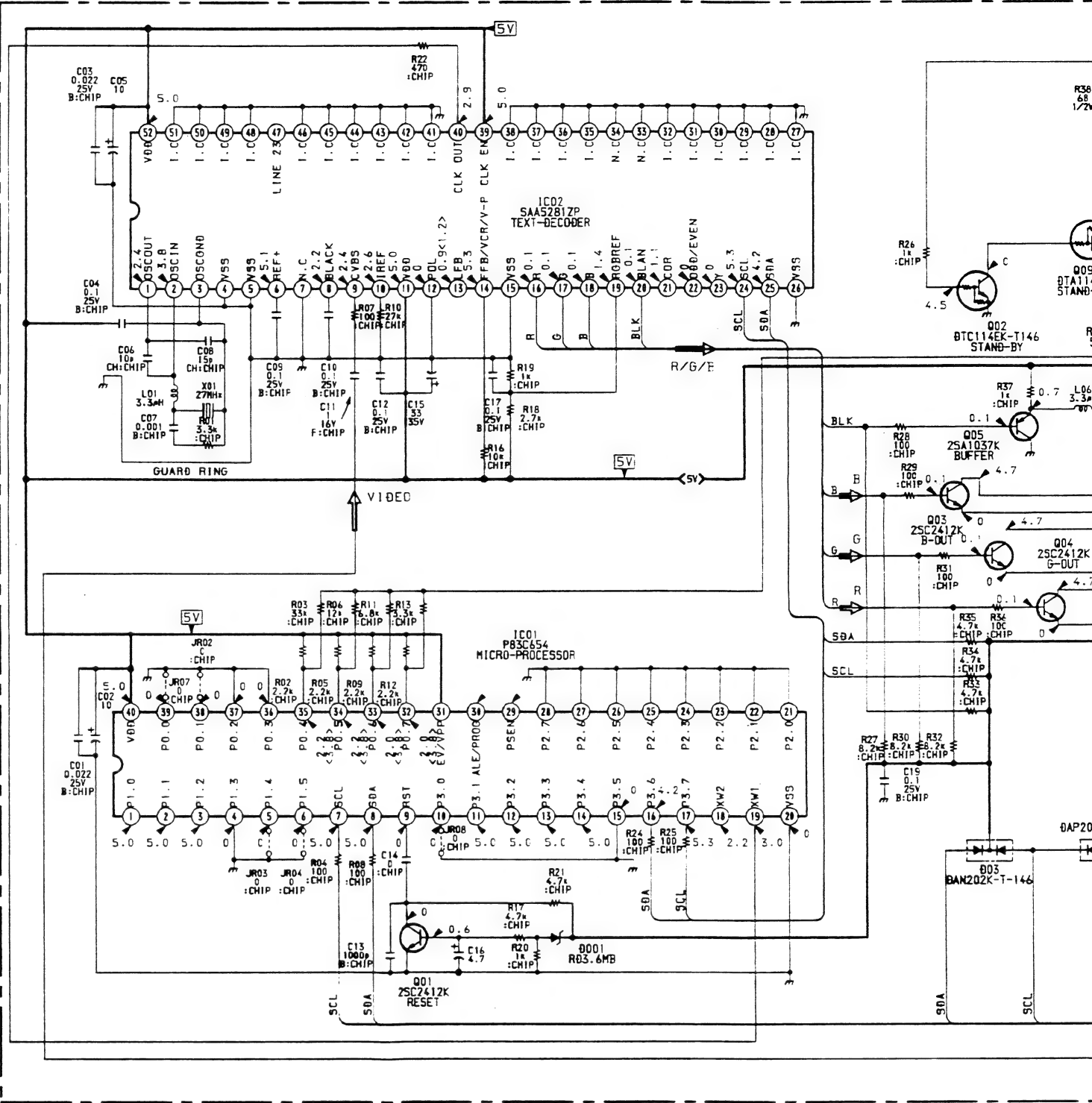
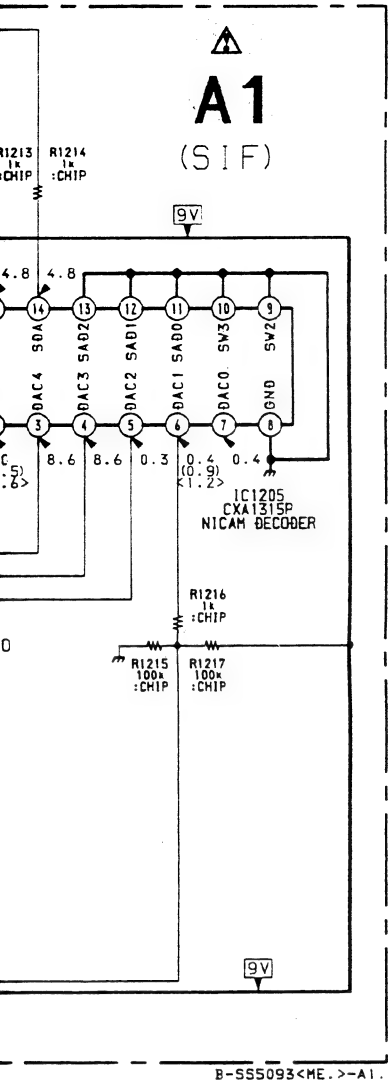


### Schematic diagrams

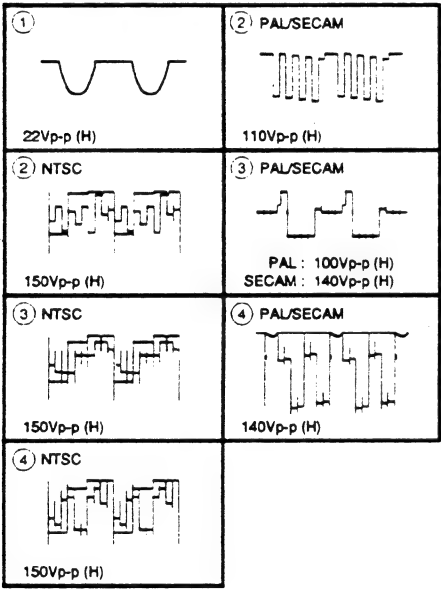
**A1, C, F1, V1 boards →**



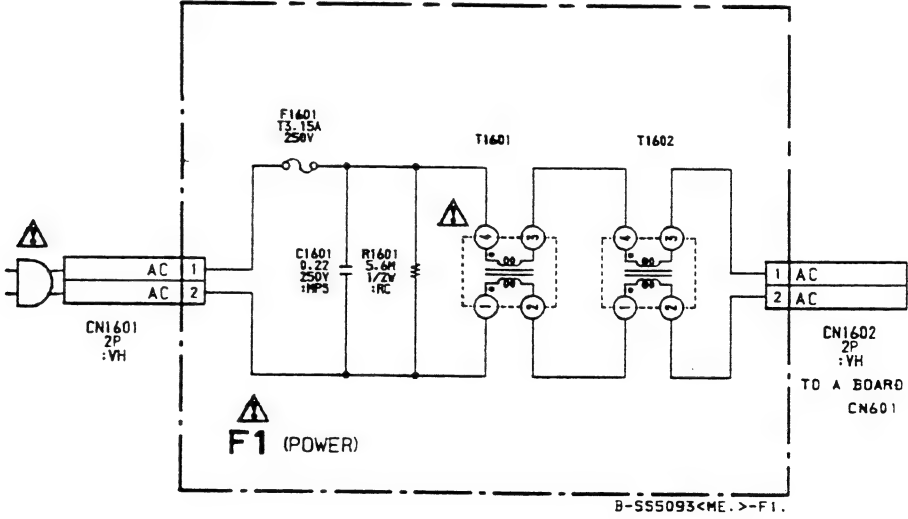
(KV-G25M11 only)



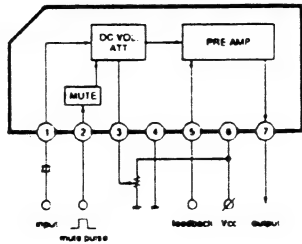
C BOARD WAVEFORMS

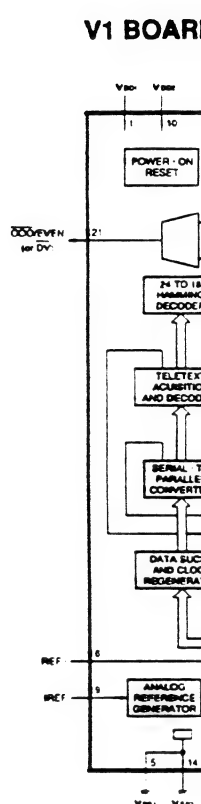
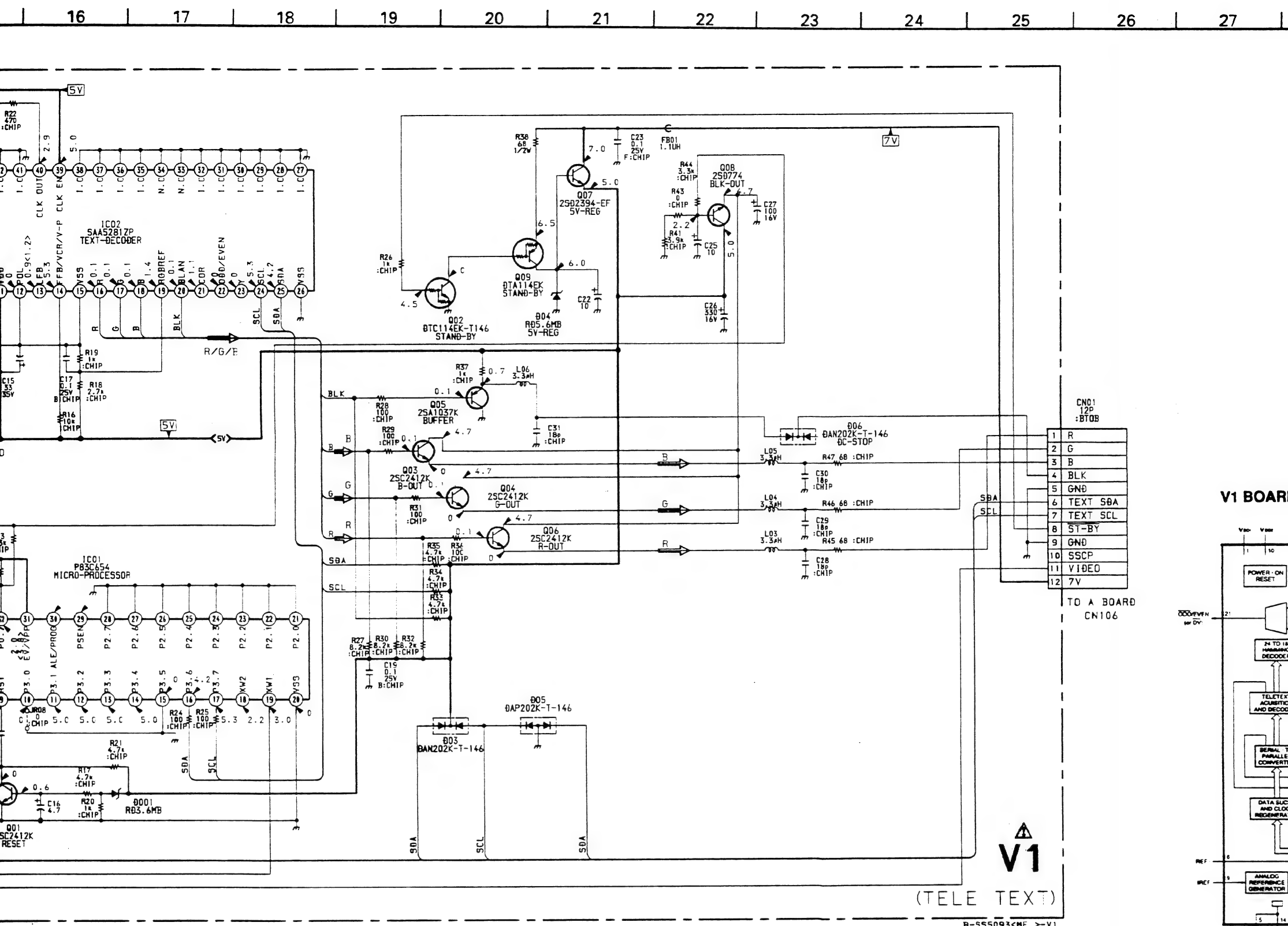


(KV-G25M1 (RUSS) only)



A1 BOARD IC1203 AN5262





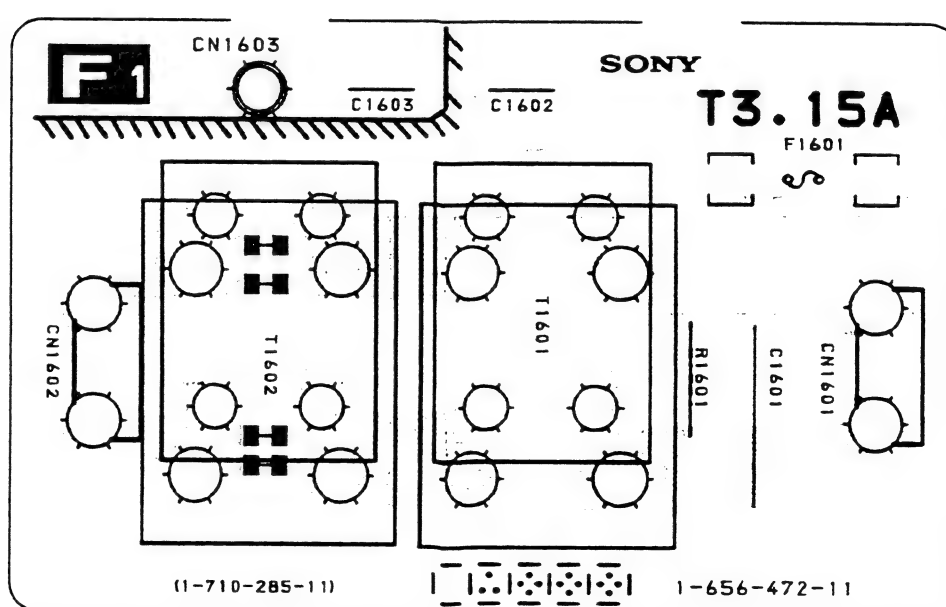
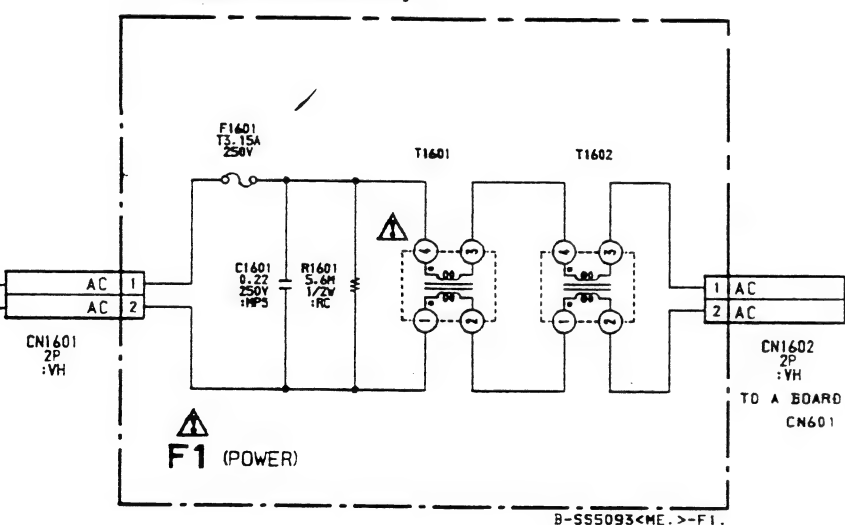
# PRINTED WIRING BOARD

**F1**

[POWER]

- F1 Board - (KV-G25M1 (RUSS) only)

(KV-G25M1 (RUSS) only)



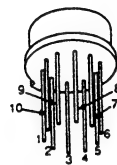




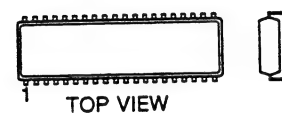
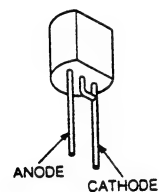


## 5-4. SEMICONDUCTORS

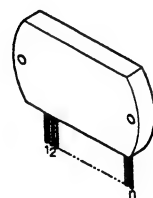
AN5262



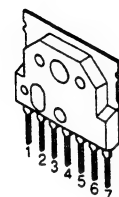
CAT24C04P (8PIN)  
CXA1110BS (30PIN)  
CXA1315P (16PIN)  
CXP85116B-615S (64PIN)  
CXP85224A-010S (64PIN)  
P83C654 (40PIN)  
SAA5281ZP (52PIN)  
TDA4665T (16PIN)  
TDA8366N3D (56PIN)  
TDA8395T (20PIN)  
TDA8424 (20PIN)  
TDA9820 (16PIN)

Dual In-line Package  
Pin 6 ~ 98HZT33-02TE  
μPC574J

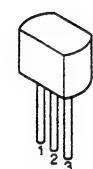
LA7016



LA7830



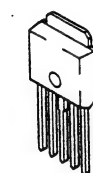
LA7910



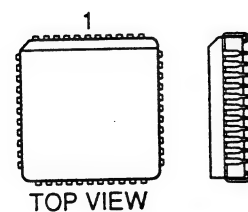
LM78L05ACZ



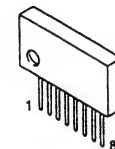
L78LR05D-MA



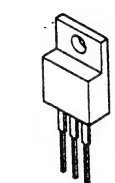
MSP3410 (44PIN)

Quad Flat J-leaded Package  
Pin 20 ~ 996

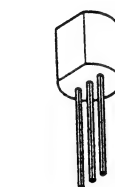
NJM2234L



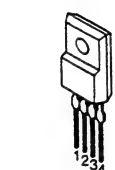
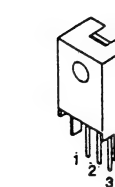
NJM7805FA



NJM78L12A



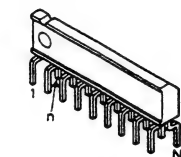
PQ09RE11

SBX1790-11  
SBX1790-51

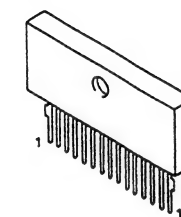
SE-135N



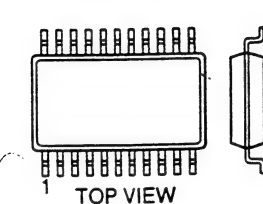
STR-S6708



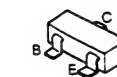
TA8223K



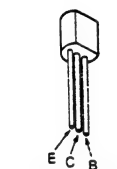
μPC4558G2 (8PIN)

Small Outline L-leaded Package  
Pin 8 ~ 98

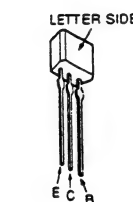
DTA114EK  
DTC114EK  
DTC143TK  
DTC144EK  
2SA1037K-QR  
2SA1162-G  
2SC1623-L5L6  
2SC2412K-QR  
2SC2712-YG



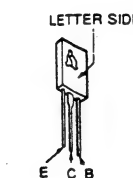
2SA1091  
2SA1091-O  
2SC2551-O



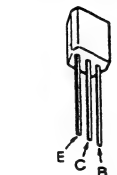
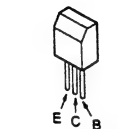
2SC2410SN  
2SC2785-HFE



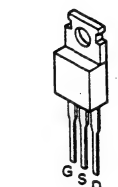
2SC2611



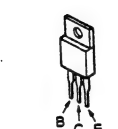
2SC2669-O

2SC3209LK  
2SD774-34

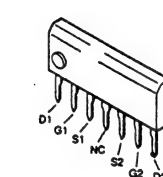
2SD2394-EF



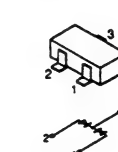
2SD2394-F



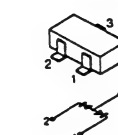
2SC4927-01



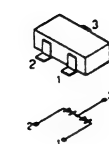
DAN202K



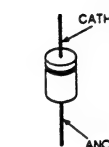
DAP202K



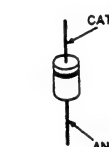
DA204K



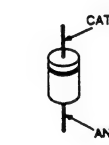
D1NL20  
EL-1Z  
GP08D  
GP08DPKG23  
RGP10GPKG23



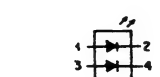
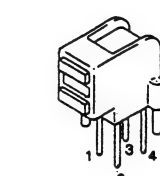
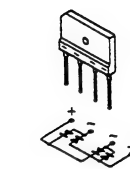
ERC06-15S  
S3L20UF4  
30DF6FC8



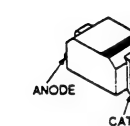
ERD29-08J  
RGP02-17EL  
RU4AM  
RU4DS  
31DF2



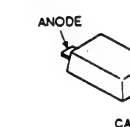
LN0220022G

LN4SB60  
RBV-406H

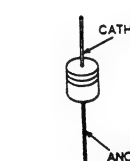
MA113-TX



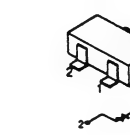
MA77-TX



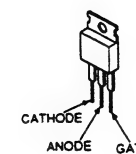
RD13ES-B  
RD13ES-B2  
RD2.2ES-B  
RD3.6ES-B  
RD3.6ES-B1  
RD4.7ES-B  
RD4.7ES-B2  
RD5.1ES-B  
RD5.1ES-B1  
RD8.2ES-B  
RD8.2ES-B2  
RD9.1ES-B  
RD9.1ESL



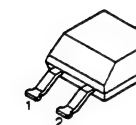
RD3.6M-B  
RD3.6M-B1  
RD5.6M-B  
RD5.6M-B2



5P4M



PC123F2



## SECTION 6 EXPLODED VIEWS

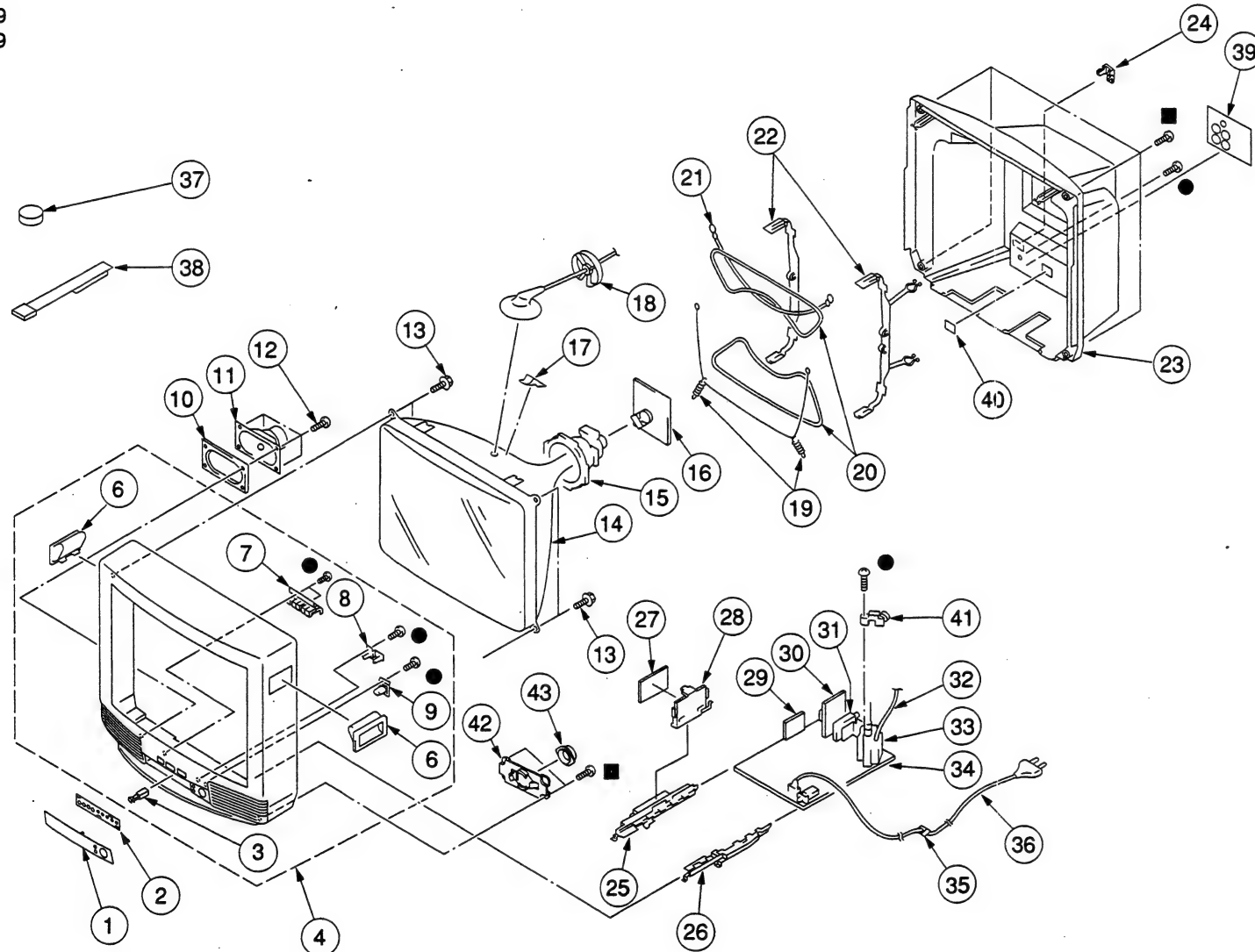
### NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

### 6-1. CHASSIS

- : BVTP3  $\times$  12 7-685-648-79
- : BVTP4  $\times$  16 7-685-663-79



REF. NO.	PART NO.	DESCRIPTION	REMARK
1	4-048-702-11	DOOR, CONTROL	
2	4-048-575-11	LABEL, CONTROL	
3	4-627-936-01	LOCK, MINIATURE SIDE	
4	X-4032-787-1	BEZNET ASSY	
6	4-048-691-01	HANDLE	
7	4-048-687-01	BUTTON, MULTI	
8	4-049-123-01	GUIDE, LIGHT	
9	4-048-688-01	BUTTON, POWER	
10	4-037-613-01	CUSHION, SP	
11	1-504-305-11	SPEAKER (5X12CM)	
12	4-043-388-01	SCREW, STEP TAPPING	
13	4-390-505-01	SCREW (7), TAPPING	
14	$\Delta$ 8-733-242-05	PICTURE TUBE (M60KWL10X)	
15	$\Delta$ 8-451-404-11	DEFLECTION YOKE (Y25G1AS)	
16	*A-1331-428-A	C BOARD, COMPLETE	
17	3-704-495-01	SPACER, DY	
18	*3-704-372-11	HOLDER, HV CABLE	
19	4-369-318-61	SPRING, TENSION	
20	$\Delta$ 1-403-619-11	COIL, DEMAGNETIZATION	
21	4-043-827-11	BAND, DEGAUSSING COIL	
22	*4-042-988-01	HOLDER, DGC	
23	4-048-703-01	COVER, REAR	
24	4-049-130-01	CLAMP, CODE	
25	*4-048-690-01	RAIL (L), GUIDE	
26	*4-048-689-01	RAIL (R), GUIDE	
27	*A-1241-190-A	F1 BOARD, COMPLETE (KV-G25M1(RUSS))	
28	*4-049-158-01	BRACKET, F1 PC BOARD (KV-G25M1(RUSS))	
29	*A-1347-103-A	V1 BOARD, COMPLETE (KV-G25M11)	
30	*A-1292-869-A	A1 BOARD, COMPLETE	
31	$\Delta$ 8-598-323-00	TUNER, KT-AG401	
32	1-900-212-02	LEAD ASSY, FOCUS	
33	$\Delta$ 1-453-190-11	TRANSFORMER, FLYBACK (NX-2743/M3B)	
34	*A-1297-513-A	A BOARD, COMPLETE (KV-G25M1(ME))	
	*A-1297-552-A	A BOARD, COMPLETE (KV-G25M1(HK))	
	*A-1297-554-A	A BOARD, COMPLETE (KV-G25M1(RUSS))	
	*A-1297-566-A	A BOARD, COMPLETE (KV-G25M11)	
35	$\Delta$ 4-389-778-11	HOLDER, AC CORD	
36	$\Delta$ 1-574-062-22	CORD, POWER (WITH CONNECTOR)	
	2.5A/250V (KV-G25M1(ME) ME)		
	2.5A/250V (KV-G25M1(HK) HK)		
	$\Delta$ 1-769-699-21	CORD, POWER (WITH CONNECTOR)	
	(KV-G25M1(HK))		
37	1-452-032-00	MAGNET, DISC	
38	X-4387-214-1	PERMALOY ASSY, CORRECTION	
39	4-049-121-01	LABEL, TERMINAL	
40	4-049-416-01	SHEET, BLIND	
41	4-039-460-01	HOLDER, FBT	
42	*4-049-124-01	BRACKET, SPEAKER	
43	1-544-453-21	SPEAKER (2CM)	

SECTION 7  
ELECTRICAL PARTS LIST

A1

A1

A

NOTE:

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Items marked \* \* \* are not stocked since service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

- RESISTORS
- All resistors are in ohms
  - F : nonflammable
- CAPACITORS
- MF :  $\mu$ F, PF :  $\mu$ MF
- COILS
- MMH :  $\mu$ H, UH :  $\mu$ H

REF. NO.	PART NO.	DESCRIPTION	REMARK
* A-1292-869-A A1 BOARD, COMPLETE *****			
<CAPACITOR>			
C1201	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C1202	1-104-665-11	ELECT 100MF	20% 16V
C1203	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C1204	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C1205	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C1206	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C1207	1-126-157-11	ELECT 10MF	20% 16V
C1208	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1209	1-104-664-11	ELECT 47MF	20% 16V
C1210	1-124-234-00	ELECT 22MF	20% 16V
C1211	1-104-664-11	ELECT 47MF	20% 16V
C1212	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C1213	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C1214	1-124-907-11	ELECT 10MF	20% 50V
C1215	1-124-907-11	ELECT 10MF	20% 50V
C1216	1-104-664-11	ELECT 47MF	20% 16V
C1217	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1218	1-104-664-11	ELECT 47MF	20% 16V
C1219	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C1221	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C1222	1-104-664-11	ELECT 47MF	20% 16V
C1223	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C1224	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C1225	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C1227	1-164-505-11	CERAMIC CHIP 2.2MF	16V
<FILTER>			
CF1201	1-527-943-00	FILTER, CERAMIC	
CF1202	1-567-101-11	FILTER, CERAMIC	
CF1203	1-567-099-00	FILTER, CERAMICO	
CF1204	1-567-100-00	FILTER, CERAMIC	
<CONNECTOR>			
CN1201	* 1-770-748-11	CONNECTOR, BOARD TO BOARD 12P	

REF. NO.	PART NO.	DESCRIPTION	REMARK
<FERRITE BEAD>			
FB1201	1-412-911-11	INDUCTOR, FERRITE BEAD	
<IC>			
IC1201	8-759-991-41	IC LM78L05ACZ	
IC1202	8-759-070-71	IC TDA9820	
IC1203	8-759-248-80	IC AN5262-(NT)	
IC1204	8-759-800-81	IC LA7016	
IC1205	8-752-057-18	IC CXA1315P	
<TRANSISTOR>			
Q1201	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1202	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1203	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1204	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
<RESISTOR>			
R1201	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1202	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1203	1-216-043-91	METAL GLAZE 560	5% 1/10W
R1204	1-216-043-91	METAL GLAZE 560	5% 1/10W
R1205	1-216-043-91	METAL GLAZE 560	5% 1/10W
R1206	1-216-043-91	METAL GLAZE 560	5% 1/10W
R1207	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W
R1208	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1209	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1210	1-216-083-00	METAL GLAZE 27K	5% 1/10W
R1211	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R1212	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1213	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1214	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1215	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R1216	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1217	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R1218	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R1219	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R1220	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R1221	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R1222	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R1223	1-216-081-00	METAL GLAZE 22K	5% 1/10W

REF. NO.	PART NO.	DESCRIPTION	REMARK
R1224	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1225	1-216-017-00	METAL GLAZE 47	5% 1/10W
R1226	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R1227	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1228	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1229	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R1230	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R1231	1-216-081-00	METAL GLAZE 22K	5% 1/10W
*****			
* A-1297-513-A A BOARD, COMPLETE (KV-G25M1 (ME))			
* A-1297-552-A A BOARD, COMPLETE (KV-G25M1 (HK))			
* A-1297-554-A A BOARD, COMPLETE (KV-G25M1 (RUSS))			
* A-1297-566-A A BOARD, COMPLETE (KV-G25M11)			
*****			
<CAPACITOR>			
1-533-223-11	CLIP, FUSE		
* 1-580-798-11	CONNECTOR PIN (DY) 6P		
* 4-049-131-01	CASE (A), SHIELD		
4-382-854-11	SCREW (M3X10), P, SW (+)		
C001	1-163-011-11	CERAMIC CHIP 0.0015MF	10% 50V
C002	1-124-916-11	ELECT 22MF	20% 50V
C003	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C004	1-124-925-11	ELECT 2.2MF	20% 50V
C007	1-124-902-00	ELECT 0.47MF	20% 50V
C008	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C009	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C010	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V
C011	1-104-664-11	ELECT 47MF	20% 16V
C012	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C015	1-101-884-00	CERAMIC 56PF	5% 50V
C016	1-101-884-00	CERAMIC 56PF	5% 50V
C017	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C018	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C030	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C031	1-124-903-11	ELECT 1MF	20% 50V
C034	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C035	1-163-009-11	CERAMIC CHIP 0.001M	10 50V
C036	1-163-009-11	CERAMIC CHIP 0.001M	10% 50V
C039	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C040	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C041	1-130-491-00	MYLAR 0.047MF	5 50V
C042	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C043	1-163-001-11	CERAMIC CHIP 220PF	10% 50V
C044	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C046	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C048	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C049	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C050	1-124-903-11	ELECT 1MF	20% 50V
C052	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C055	1-126-941-11	ELECT 470MF	20% 16V
C057	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
C072	1-126-941-11	ELECT 470MF	20% 16V
C074	1-163-001-11	CERAMIC CHIP 220PF	10% 50V

REF. NO.	PART NO.	DESCRIPTION	REMARK
C101	1-163-029-11	CERAMIC CHIP 0.0047MF	50V
C102	1-136-169-00	FILM 0.22MF	5% 50V
C105	1-104-665-11	ELECT 100MF	20% 16V
C106	1-124-907-11	ELECT 10MF	20% 50V
C107	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C108	1-126-942-61	ELECT 1000MF	20% 16V
C109	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C114	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C115	1-163-093-00	CERAMIC CHIP 10PF	5% 50V
C116	1-136-165-00	FILM 0.1MF	5% 50V
C117	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C118	1-124-916-11	ELECT 22MF	20% 50V
C119	1-163-059-00	CERAMIC CHIP 0.01MF	50V
C120	1-130-493-00	MYLAR 0.068MF	5% 50V
C121	1-130-493-00	MYLAR 0.068MF	5% 50V
C122	1-104-665-11	ELECT 100MF	20% 16V
C124	1-163-029-11	CERAMIC CHIP 0.0047MF	50V
C125	1-163-029-11	CERAMIC CHIP 0.0047MF	50V
C234	1-104-664-11	ELECT 47MF	20% 16V
C235	1-104-664-11	ELECT 47MF	20% 16V
C236	1-126-968-11	ELECT 100MF	20% 35V
C237	1-104-665-11	ELECT 100MF	20% 16V
C238	1-136-167-00	FILM 0.15MF	5% 50V
C241	1-124-557-11	ELECT 1000MF	20% 25V
C242	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C243	1-126-233-11	ELECT 22MF	20% 25V
C244	1-124-557-11	ELECT 1000MF	20% 25V
C253	1-104-665-11	ELECT 100MF	20% 16V
C258	1-136-169-00	FILM 0.22MF	5% 50V
C300	1-104-664-11	ELECT 47MF	20% 16V
C301	1-163-249-11	CERAMIC CHIP 82PF	5% 50V
C302	1-163-099-00	CERAMIC CHIP 18PF	5% 50V
C303	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C304	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C305	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C306	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C307	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C308	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C309	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C310	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C311	1-163-097-00	CERAMIC CHIP 15PF	5% 50V
C312	1-163-097-00	CERAMIC CHIP 15PF	5% 50V
C313	1-104-665-11	ELECT 100MF	20% 16V
C314	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C315	1-165-320-11	CERAMIC CHIP 0.47MF	10% 16V
C316	1-102-125-00	CERAMIC 0.0047MF	10% 50V
C319	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C320	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C321	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C322	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C323	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
C324	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C325	1-163-093-00	CERAMIC CHIP 10PF	5% 50V
C326	1-163-095-00	CERAMIC CHIP 12PF	5% 50V
C327	1-163-093-00	CERAMIC CHIP 10PF	5% 50V
C329	1-163-016-00	CERAMIC CHIP 0.0039MF	10% 50V

A

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C1225	1-164-005-11	CERAMIC CHIP 0.47MF	25V	D591	8-719-911-19	DIODE 1SS119-25	
C1226	1-124-120-11	ELECT 220MF 20%	16V	D601	8-719-052-84	DIODE RBV-406H-02	
C1229	1-216-295-00	CONDUCTOR, CHIP (2012)		D602	8-719-108-18	THYRISTOR 5P4M	
				D603	8-719-112-87	DIODE RD13EST1B	
C1513	1-124-122-11	ELECT 100MF 20%	50V	D604	8-719-110-36	DIODE RU4DS	
		<CONNECTOR>					
CN101	*1-560-124-00	PLUG, CONNECTOR (2.5MM) 4P		D605	8-719-052-52	DIODE 31DF2-FD5	
CN103	*1-564-509-11	PLUG, CONNECTOR 6P		D606	8-719-052-52	DIODE 31DF2-FD5	
CN104	*1-770-747-11	CONNECTOR, BOARD TO BOARD 12P		D607	8-719-510-26	DIODE D1NL20	
CN106	*1-770-747-11	CONNECTOR, BOARD TO BOARD 12P		D609	8-719-510-26	DIODE D1NL20	
		(KV-G25M11)		D610	8-719-510-26	DIODE D1NL20	
CN251	*1-564-507-11	PLUG, CONNECTOR 4P		D611	8-719-510-26	DIODE D1NL20	
CN601	*1-580-843-11	PIN, CONNECTOR (POWER)		D801	8-719-945-80	DIODE ERC06-15S	
CN602	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		D802	8-719-900-26	DIODE ERD29-08J	
CN603	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P		D851	8-719-302-43	DIODE EL1Z	
CN851	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P		D852	8-719-028-72	DIODE RGP02-17EL-6433	
		<TRIMMER>					
CT45	1-579-690-21	TRAP, CERAMIC		D853	8-719-302-43	DIODE EL1Z	
CT55	1-404-801-11	TRAP, CERAMIC		D855	8-719-302-43	DIODE EL1Z	
CT60	1-409-429-11	TRAP, CERAMIC		D857	8-719-908-03	DIODE GP08D	
CT65	1-409-327-00	TRAP, CERAMIC (6.5MHZ)		D858	8-719-908-03	DIODE GP08D	
		<DIODE>		D860	8-719-911-19	DIODE 1SS119-25	
D001	8-719-109-81	DIODE RD4.7ESB2		D891	8-719-945-80	DIODE ERC06-15S	
D002	8-719-911-19	DIODE 1SS119-25		D901	8-719-054-60	DIODE LNO220022G	
D003	8-719-041-97	DIODE MA113-(TX)		D1201	8-719-121-24	DIODE RD9.1ESL	
D004	8-719-109-84	DIODE RD5.1ESB1		D1202	8-719-121-24	DIODE RD9.1ESL	
D005	8-719-109-84	DIODE RD5.1ESB1		D1207	8-719-121-24	DIODE RD9.1ESL	
		<FUSE>		D1208	8-719-121-24	DIODE RD9.1ESL	
D101	8-719-041-97	DIODE MA113-(TX)		D1504	8-719-911-19	DIODE 1SS119-25	
D102	8-719-109-81	DIODE RD4.7ESB2		D1505	8-719-109-84	DIODE RD5.1ESB1	
D103	8-719-914-42	DIODE DA204K					
D251	8-719-911-19	DIODE 1SS119-25					
D252	8-719-914-42	DIODE DA204K					
		<FERRITE BEAD>					
D301	8-719-041-97	DIODE MA113-(TX)		FB101	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
D302	8-719-041-97	DIODE MA113-(TX)		FB102	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
D303	8-719-041-97	DIODE MA113-(TX)		FB251	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
D304	8-719-041-97	DIODE MA113-(TX)		FB601	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
D305	8-719-041-97	DIODE MA113-(TX)		FB603	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
D306	8-719-911-19	DIODE 1SS119-25		FB610	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
D307	8-719-911-19	DIODE 1SS119-25		FB611	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
D308	8-719-109-54	DIODE RD2.2ESB2		FB801	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
D310	8-719-041-97	DIODE MA113-(TX)					
D311	8-719-109-68	DIODE RD3.6ESB1		FB801	1-420-872-00	COIL, AIR CORE (KV-G25M1 (RUSS))	
		<IC>					
D312	8-719-110-08	DIODE RD8.2ESB2		IC001	8-752-866-21	IC CXP85116B-615S	
D313	8-719-041-97	DIODE MA113-(TX)		IC002	8-759-805-37	IC L78LR05D-MA	
D314	8-719-041-97	DIODE MA113-(TX)		IC003	8-759-093-95	IC CAT24C04P	
D351	8-719-908-03	DIODE GP08D		IC004	8-741-790-11	ELEMENT, RAY-CATCHER SBX1790-11	
D401	8-719-421-40	DIODE MA77		IC102	8-759-157-40	IC UPC574J	
D402	8-719-911-19	DIODE 1SS119-25		IC203	8-759-336-30	IC TA8223K	
D403	8-719-911-19	DIODE 1SS119-25		IC300	8-759-339-50	IC TDA8366N3D	
D513	8-719-109-84	DIODE RD5.1ESB1		IC351	8-759-293-27	IC TDA4665	
D551	8-719-908-03	DIODE GP08D					
D561	8-719-911-19	DIODE 1SS119-25					

F. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C330	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V		C609	1-126-600-11	ELECT 100MF 20% 160V	
C332	1-136-165-00	FILM 0.1MF 5% 50V		C610	1-126-942-61	ELECT 1000MF 20% 16V	
C333	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V		C612	1-102-228-00	CERAMIC 470PF 10% 500V	
C335	1-102-973-00	CERAMIC 100PF 5% 50V		C613	1-102-824-00	CERAMIC 470PF 5% 50V	
C337	1-124-916-11	ELECT 22MF 20% 50V		C614	1-124-557-11	ELECT 1000MF 20% 25V	
C338	1-165-320-11	CERAMIC CHIP 0.47MF 10% 16V		C615	$\Delta$ 1-164-497-51	CERAMIC 470PF 10% 400V	
C339	1-163-121-00	CERAMIC CHIP 150PF 5% 50V		C616	1-102-228-00	CERAMIC 470PF 10% 500V	
C340	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V		C620	1-136-619-11	FILM 0.0016MF 3% 2KV	
C342	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V		C621	$\Delta$ 1-136-548-13	FILM 0.1MF 20% 250V	
C344	1-124-907-11	ELECT 10MF 20% 50V		C622	1-106-383-00	MYLAR 0.047MF 10% 200V	
C350	1-104-664-11	ELECT 47MF 20% 16V		C623	1-124-120-11	ELECT 220MF 20% 16V	
C351	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V		C624	1-126-942-61	ELECT 1000MF 20% 16V	
C352	1-164-222-11	CERAMIC CHIP 0.22MF 25V		C625	1-102-074-00	CERAMIC 0.001MF 10% 50V	
C358	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V		C630	$\Delta$ 1-164-497-51	CERAMIC 470PF 10% 400V	
C359	1-104-665-11	ELECT 100MF 20% 16V		C631	1-161-830-00	CERAMIC 0.0047MF 99% 500V	
C367	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V		C801	1-123-024-21	ELECT 33MF 160V	
C368	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V		C802	1-106-367-00	MYLAR 0.01MF 10% 200V	
C369	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V		C804	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C370	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V		C805	1-102-244-00	CERAMIC 220PF 10% 500V	
C374	1-124-910-11	ELECT 47MF 20% 50V		C806	1-124-903-11	ELECT 1MF 20% 50V	
C375	1-124-910-11	ELECT 47MF 20% 50V		C807	1-136-540-11	FILM 0.82MF 5% 200V	
C402	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V		C808	1-130-959-00	FILM 0.047MF 10% 400V	
C403	1-124-916-11	ELECT 22MF 20% 50V		C809	1-162-115-00	CERAMIC 330PF 10% 2KV	
C405	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V		C810	1-106-365-00	MYLAR 0.0082MF 99% 200V	
C406	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V		C811	1-162-318-11	CERAMIC 0.001M 10% 500V	
C407	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V		C812	1-136-617-11	FILM 0.019M 3% 2KV	
C408	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V		C816	1-123-947-00	ELECT 10MF 20% 160V	
C409	1-163-109-00	CERAMIC CHIP 47PF 5% 50V		C820	1-162-135-11	CERAMIC 560PF 10% 2KV	
C410	1-163-103-00	CERAMIC CHIP 27PF 5% 50V		C821	1-106-391-12	MYLAR 0.1MF 10% 200V	
C411	1-163-113-00	CERAMIC CHIP 68PF 5% 50V		C822	1-136-541-11	FILM 1.5MF 5% 200V	
C412	1-163-113-00	CERAMIC CHIP 68PF 5% 50V		C823	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C413	1-104-665-11	ELECT 100MF 20% 16V		C825	1-106-367-00	MYLAR 0.01MF 10% 200V	
C414	1-163-117-00	CERAMIC CHIP 100PF 5% 50V		C850	1-124-480-11	ELECT 470MF 20% 25V	
C415	1-163-017-00	CERAMIC CHIP 0.0047MF 10V 50V		C852	1-104-574-11	CERAMIC 0.0047MF 10 2KV	
C416	1-163-117-00	CERAMIC CHIP 100PF 5% 50V		C853	1-162-318-11	CERAMIC 0.001MF 10% 500V	
C417	1-163-117-00	CERAMIC CHIP 100PF 5% 50V		C854	1-124-480-11	ELECT 470MF 20% 25V	
C418	1-216-295-00	CONDUCTOR, CHIP (2012)		C856	1-162-318-11	CERAMIC 0.001MF 10% 500V	
C419	1-163-117-00	CERAMIC CHIP 100PF 5% 50V		C857	1-130-493-00	MYLAR 0.068MF 5% 50V	
C420	1-104-664-11	ELECT 47MF 20% 16V		C860	1-102-228-00	CERAMIC 470PF 10% 500V	
C422	1-216-295-00	CONDUCTOR, CHIP (2012)		C861	1-107-654-11	ELECT 33MF 20% 250V	
C423	1-216-295-00	CONDUCTOR, CHIP (2012)		C875	1-124-910-11	ELECT 47MF 20% 50V	
C424	1-216-295-00	CONDUCTOR, CHIP (2012)		C876	1-108-702-11	MYLAR 0.068MF 10% 100V	
C425	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V		C891	1-163-007-11	CERAMIC CHIP 680PF 10% 50V	
C501	1-102-228-00	CERAMIC 470PF 10% 500V		C898	1-106-379-12	MYLAR 0.033MF 10% 100V	
C523	1-104-665-11	ELECT 100MF 20% 16V		C901	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C548	1-106-220-00	MYLAR 0.1MF 10% 100V		C902	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C551	1-126-968-11	ELECT 100MF 20% 35V		C1201	1-104-665-11	ELECT 100MF 20% 16V	
C552	1-126-968-11	ELECT 100MF 20% 35V		C1202	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C553	1-163-019-00	CERAMIC CHIP 0.0068MF 10% 50V		C1204	1-104-665-11	ELECT 100MF 20% 16V	
C554	1-102-244-00	CERAMIC 220PF 10% 500V		C1205	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C555	1-101-804-00	CERAMIC 10PF 5% 500V		C1210	1-104-665-11	ELECT 100MF 20% 16V	
C562	1-104-665-11	ELECT 100MF 20% 16V		C1213	1-124-903-11	ELECT 1MF 20% 50V	
C601	1-162-318-11	CERAMIC 0.001MF 10% 500V		C1214	1-124-907-11	ELECT 10MF 20% 50V	
C602	1-161-830-00	CERAMIC 0.0047MF 99% 500V		C1217	1-104-665-11	ELECT 100MF 20% 16V	
C604	1-125-483-11	ELECT(BLOCK) 470MF 20% 400V		C1218	1-163-123-00	CERAMIC CHIP 180PF 5% 50V	
C608	1-104-332-11	CERAMIC 470PF 10% 2KV		C1221	1-164-005-11	CERAMIC CHIP 0.47MF 25V	



A

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R021	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R266	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R027	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R301	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R028	1-216-025-00	METAL GLAZE 100	5% 1/10W	R302	1-216-035-00	METAL GLAZE 270	5% 1/10W
R029	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R303	1-216-025-00	METAL GLAZE 100	5% 1/10W
R030	1-216-085-00	METAL GLAZE 33K	5% 1/10W				
R031	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R304	1-216-025-00	METAL GLAZE 100	5% 1/10W
R033	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R305	1-216-025-00	METAL GLAZE 100	5% 1/10W
R035	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R306	1-216-025-00	METAL GLAZE 100	5% 1/10W
R036	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R307	1-216-025-00	METAL GLAZE 100	5% 1/10W
R038	1-216-033-00	METAL GLAZE 220	5% 1/10W	R308	1-216-033-00	METAL GLAZE 220	5% 1/10W
R040	1-216-033-00	METAL GLAZE 220	5% 1/10W	R309	1-216-033-00	METAL GLAZE 220	5% 1/10W
R041	1-216-025-00	METAL GLAZE 100	5% 1/10W	R310	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R042	1-216-039-00	METAL GLAZE 390	5% 1/10W	R311	1-216-075-00	METAL GLAZE 12K	5% 1/10W
R043	1-216-079-00	METAL GLAZE 18K	5% 1/10W	R312	1-216-025-00	METAL GLAZE 100	5% 1/10W
R044	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R313	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R046	1-216-097-00	METAL GLAZE 100K	5% 1/10W	R314	1-216-025-00	METAL GLAZE 100	5% 1/10W
R047	1-216-025-00	METAL GLAZE 100	5% 1/10W	R315	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R048	1-216-025-00	METAL GLAZE 100	5% 1/10W	R316	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R049	1-216-121-00	METAL GLAZE 1M	5% 1/10W				(KV-G25M11)
R050	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R317	1-216-049-00	METAL GLAZE 1K	5% 1/10W
							(KV-G25M11)
R051	1-216-089-00	METAL GLAZE 47K	5% 1/10W	R318	1-216-099-00	METAL GLAZE 120K	5% 1/10W
R052	1-216-089-00	METAL GLAZE 47K	5% 1/10W				
R054	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R319	1-216-109-00	METAL GLAZE 330K	5% 1/10W
R057	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R320	1-216-083-00	METAL GLAZE 27K	5% 1/10W
R059	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R321	1-216-689-11	METAL CHIP 39K	0.50% 1/10W
				R322	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W
R067	1-216-033-00	METAL GLAZE 220	5% 1/10W	R324	1-216-121-00	METAL GLAZE 1M	5% 1/10W
R068	1-216-025-00	METAL GLAZE 100	5% 1/10W				
R071	1-216-037-00	METAL GLAZE 330	5% 1/10W	R327	1-216-025-00	METAL GLAZE 100	5% 1/10W
R076	1-216-025-00	METAL GLAZE 100	5% 1/10W				(KV-G25M11)
R077	1-216-025-00	METAL GLAZE 100	5% 1/10W	R327	1-216-295-00	CONDUCTOR, CHIP (2012)	(KV-G25M11)
				R328	1-216-025-00	METAL GLAZE 100	5% 1/10W
							(KV-G25M11)
R090	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R328	1-216-295-00	CONDUCTOR, CHIP (2012)	(KV-G25M11)
R101	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R329	1-216-025-00	METAL GLAZE 100	5% 1/10W
R102	1-216-049-00	METAL GLAZE 1K	5% 1/10W				(KV-G25M11)
R103	1-216-041-00	METAL GLAZE 470	5% 1/10W				
R113	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R329	1-216-295-00	CONDUCTOR, CHIP (2012)	(KV-G25M11)
				R330	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R114	1-216-041-00	METAL GLAZE 470	5% 1/10W	R332	1-216-033-00	METAL GLAZE 220	5% 1/10W
R115	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R334	1-216-041-00	METAL GLAZE 470	5% 1/10W
R116	1-216-081-00	METAL GLAZE 22K	5% 1/10W				(KV-G25M11)
R117	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R335	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R118	1-216-081-00	METAL GLAZE 22K	5% 1/10W				
R119	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W	R336	1-216-077-00	METAL GLAZE 15K	5% 1/10W
R120	1-216-109-00	METAL GLAZE 330K	5% 1/10W	R338	1-216-043-91	METAL GLAZE 560	5% 1/10W
R131	1-216-464-11	METAL OXIDE 18K	5% 2W	R339	1-216-036-00	METAL GLAZE 300	5% 1/10W
R180	1-216-033-00	METAL GLAZE 220	5% 1/10W	R340	1-216-035-00	METAL GLAZE 270	5% 1/10W
R181	1-216-033-00	METAL GLAZE 220	5% 1/10W	R341	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R182	1-216-033-00	METAL GLAZE 220	5% 1/10W	R351	1-216-001-00	METAL GLAZE 10	5% 1/10W
R242	1-216-043-91	METAL GLAZE 560	5% 1/10W	R355	1-216-001-00	METAL GLAZE 10	5% 1/10W
R243	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R356	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R244	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R403	1-216-021-00	METAL GLAZE 68	5% 1/10W
R245	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W	R406	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R250	1-216-295-00	CONDUCTOR, CHIP (2012)		R407	1-216-063-00	METAL GLAZE 3.9K	5% 1/10W
R251	1-216-295-00	CONDUCTOR, CHIP (2012)		R408	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
R252	1-249-411-11	CARBON 330	5% 1/4W	R409	1-216-025-00	METAL GLAZE 100	5% 1/10W
R253	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R410	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R254	1-249-389-11	CARBON 4.7	5% 1/4W	R411	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R265	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R412	1-216-069-00	METAL GLAZE 6.8K	5% 1/10W
				R413	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W

A

- 49 -

A

C

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R910	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	<TRANSFORMER>			
R911	1-216-071-00	METAL GLAZE 8.2K	5% 1/10W	T601	$\Delta$ 1-429-139-11	TRANSFORMER, CONVERTER (SRT)	
R913	1-216-041-00	METAL GLAZE 470	5% 1/10W	T605	$\Delta$ 1-424-461-11	TRANSFORMER, LINE FILTER	
R914	1-216-041-00	METAL GLAZE 470	5% 1/10W	T801	1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE	
R915	1-216-071-00	METAL GLAZE 8.2K	5% 1/10W	T851	$\Delta$ 1-453-190-11	TRANSFORMER ASSY. FLYBACK (NE-2743/M3B)	
R1201	1-216-023-00	METAL GLAZE 82	5% 1/10W	<THERMISTOR>			
R1202	1-216-049-00	METAL GLAZE 1K	5% 1/10W	THP601	$\Delta$ 1-810-961-11	THERMISTOR, POSITIVE	
R1203	1-216-089-00	METAL GLAZE 47K	5% 1/10W	<TUNER>			
R1205	1-216-023-00	METAL GLAZE 82	5% 1/10W	TU101	$\Delta$ 8-598-323-00	TUNER BT-AC401	
R1206	1-216-089-00	METAL GLAZE 47K	5% 1/10W	<CRYSTAL>			
R1211	1-216-021-00	METAL GLAZE 68	5% 1/10W	X101	1-577-082-11	VIBRATOR, CERAMIC	
R1212	1-216-049-00	METAL GLAZE 1K	5% 1/10W	X300	1-404-835-31	COIL, IF	
R1215	1-216-113-00	METAL GLAZE 470K	5% 1/10W	X358	1-567-505-11	OSCILLATOR, CRYSTAL	
R1216	1-216-113-00	METAL GLAZE 470K	5% 1/10W	X443	1-567-504-11	OSCILLATOR, CRYSTAL	
R1218	1-216-041-00	METAL GLAZE 470	5% 1/10W	*****			
R1219	1-216-073-00	METAL GLAZE 10K	5% 1/10W	*A-1331-428-A C BOARD, COMPLETE			
R1220	1-216-049-00	METAL GLAZE 1K	5% 1/10W	*****			
R1221	1-216-073-00	METAL GLAZE 10K	5% 1/10W	<CAPACITOR>			
R1227	1-216-689-11	METAL GLAZE 39K	5% 1/10W	C701	1-162-114-00	CERAMIC 0.0047MF 2KV	
R1228	1-216-049-00	METAL GLAZE 1K	5% 1/10W	C702	1-102-074-00	CERAMIC 0.001MF 10% 50V	
R1229	1-216-041-00	METAL GLAZE 470	5% 1/10W	C704	1-130-202-00	FILM 0.022MF 5% 400V	
R1230	1-216-073-00	METAL GLAZE 10K	5% 1/10W	C708	1-102-114-00	CERAMIC 470PF 10% 50V	
R1231	1-216-049-00	METAL GLAZE 1K	5% 1/10W	C709	1-102-114-00	CERAMIC 470PF 10% 50V	
R1232	1-216-063-00	METAL GLAZE 3.9K	5% 1/10W	C710	1-102-114-00	CERAMIC 470PF 10% 50V	
R1233	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	C712	1-101-361-00	CERAMIC 150PF 5% 50V	
R1235	1-216-689-11	METAL GLAZE 39K	5% 1/10W	C713	1-102-971-00	CERAMIC 82PF 5% 50V	
R1239	1-249-389-11	CARBON 4.7	5% 1/4W	C714	1-101-361-00	CERAMIC 150PF 5% 50V	
R1240	1-216-025-00	METAL GLAZE 100	5% 1/10W	C716	1-124-122-11	ELECT 100MF 20% 50V	
R1241	1-216-049-00	METAL GLAZE 1K	5% 1/10W	<CONNECTOR>			
R1243	1-216-025-00	METAL GLAZE 100	5% 1/10W	CN701	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P	
R1245	1-216-037-00	METAL GLAZE 330	5% 1/10W	CN703	*1-564-509-11	PLUG, CONNECTOR 6P	
R1246	1-216-037-00	METAL GLAZE 330	5% 1/10W	CN704	1-695-915-11	TAB (CONTACT)	
R1247	1-216-041-00	METAL GLAZE 470	5% 1/10W	<DIODE>			
R1248	1-216-051-00	METAL GLAZE 1.2K	5% 1/10W	D701	8-719-911-19	DIODE 1SS119-25	
R1249	1-216-041-00	METAL GLAZE 470	5% 1/10W	D702	8-719-911-19	DIODE 1SS119-25	
R1513	1-216-073-00	METAL GLAZE 10K	5% 1/10W	D703	8-719-911-19	DIODE 1SS119-25	
R1514	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	D704	8-719-911-19	DIODE 1SS119-25	
R1515	1-216-025-00	METAL GLAZE 100	5% 1/10W	D705	8-719-911-19	DIODE 1SS119-25	
<SWITCH>				D706	8-719-911-19	DIODE 1SS119-25	
S601	$\Delta$ 1-762-087-11	SWITCH, PUSH (AC POWER)		D707	8-719-911-19	DIODE 1SS119-25	
S801	1-572-707-11	SWITCH, LEVER		D708	8-719-911-19	DIODE 1SS119-25	
S901	1-570-577-11	SWITCH, PUSH		D709	8-719-911-19	DIODE 1SS119-25	
S902	1-570-577-11	SWITCH, PUSH		D710	8-719-911-19	DIODE 1SS119-25	
S903	1-570-577-11	SWITCH, PUSH		<SPARK GAP>			
S904	1-570-577-11	SWITCH, PUSH		SG801	1-519-422-11	GAP, SPARK	
S905	1-570-577-11	SWITCH, PUSH		<FILTER>			
<SPARK GAP>				SWF401	1-760-771-11	FILTER, SURFACE WAVE	
<FILTER>							



EF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R414	1-216-041-00	METAL GLAZE 470	5% 1/10W	R617	1-215-924-00	METAL OXIDE 15K	5% 3W F
R415	1-216-033-00	METAL GLAZE 220	5% 1/10W	R619	1-249-377-11	CARBON 0.47	5% 1/4W F
R416	1-216-033-00	METAL GLAZE 220	5% 1/10W	R621	1-211-748-11	FUSIBLE 5.6	5% 5W F
				R622	1-217-190-21	WIREWOUND 0.15	10% 2W F
R417	1-216-033-00	METAL GLAZE 220	5% 1/10W	R623	1-247-807-31	CARBON 100	5% 1/4W
R418	1-216-045-00	METAL GLAZE 680	5% 1/10W				
R419	1-216-049-00	METAL GLAZE 1K	5 1/10W	R624	1-215-881-11	METAL OXIDE 15	5% 2W F
R420	1-216-039-00	METAL GLAZE 390	5% 1/10W	R625	1-249-424-11	CARBON 3.9K	5% 1/4W
R421	1-216-033-00	METAL GLAZE 220	5% 1/10W	R626	1-249-420-11	CARBON 1.8K	5% 1/4W
				R627	1-249-417-11	CARBON 1K	5% 1/4W
R422	1-216-027-00	METAL GLAZE 120	5% 1/10W	R628	1-249-417-11	CARBON 1K	5% 1/4W
R423	1-216-029-00	METAL GLAZE 150	5% 1/10W				
R424	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R629	1-249-401-11	CARBON 47	5% 1/4W
R425	1-216-039-00	METAL GLAZE 390	5% 1/10W	R635	1-215-882-00	METAL OXIDE 22	5% 2W F
R426	1-216-029-00	METAL GLAZE 150	5% 1/10W			(KV-G25M11)	
				R636	1-215-924-00	METAL OXIDE 15K	5% 3W F
R427	1-216-037-00	METAL GLAZE 330	5% 1/10W	R801	1-215-920-11	METAL OXIDE 3.3K	5% 3W F
R428	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R802	1-249-387-11	CARBON 3.3	5% 1/4W F
R429	1-216-039-00	METAL GLAZE 390	5% 1/10W				
R430	1-216-041-00	METAL GLAZE 470	5% 1/10W	R804	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R431	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R805	1-216-081-00	METAL GLAZE 22K	5% 1/10W
				R808	1-535-303-00	LEAD, JUMPER (5.0MM)	
R432	1-216-041-00	METAL GLAZE 470	5% 1/10W	R809	1-247-756-11	CARBON 2.2K	5% 1/2W F
R433	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R811	1-216-346-00	METAL OXIDE 0.56	5% 1W F
R434	1-216-041-00	METAL GLAZE 470	5% 1/10W				
R435	1-216-041-00	METAL GLAZE 470	5% 1/10W	R812	1-216-075-00	METAL GLAZE 12K	5% 1/10W
R436	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R816	1-249-430-11	CARBON 12K	5% 1/4W
				R820	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W
R437	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R821	1-215-910-00	METAL OXIDE 68	5% 3W F
R440	1-216-029-00	METAL GLAZE 150	5% 1/10W	R822	1-216-429-00	METAL OXIDE 270	5% 1W F
R441	1-216-021-00	METAL GLAZE 68	5% 1/10W				
R521	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R823	1-247-756-11	CARBON 2.2K	5% 1/2W F
R552	1-216-105-91	METAL GLAZE 220K	5% 1/10W (KV-G25M1 (RUSS))/(HK), KV-G25M11)	R825	1-249-392-11	CARBON 8.2	5% 1/4W F
				R826	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W
R553	1-216-295-00	CONDUCTOR, CHIP (2012) (KV-G25M1 (RUSS))/(HK), KV-G25M11)		R827	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R555	1-249-429-11	CARBON 10K	5% 1/4W	R828	1-216-063-00	METAL GLAZE 3.9K	5% 1/10W
R556	1-216-049-00	METAL GLAZE 1K	5 1/10W				
R557	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W	R829	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W
R560	1-216-295-00	CONDUCTOR, CHIP (2012)		R831	1-216-426-11	METAL OXIDE 82	5% 1W F
				R832	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R561	1-249-421-11	CARBON 2.2K	5% 1/4W	R834	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R562	1-249-420-11	CARBON 1.8K	5% 1/4W	R851	1-249-382-11	CARBON 1.2	5% 1/4W F
R563	1-247-885-00	CARBON 180K	5% 1/4W				
R564	1-216-091-00	METAL GLAZE 56K	5% 1/10W	R852	1-249-923-11	CARBON 1K	5% 1/4W F
R565	1-216-091-00	METAL GLAZE 56K	5% 1/10W	R853	1-249-377-11	CARBON 0.47	5% 1/4W F
				R854	1-249-377-11	CARBON 0.47	5% 1/4W F
R566	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R855	1-202-818-00	SOLID 1K	20% 1/2W
R569	1-247-883-00	CARBON 150K	5% 1/4W	R856	1-249-425-11	CARBON 4.7K	5% 1/4W
R570	1-216-295-00	CONDUCTOR, CHIP (2012) (KV-G25M1 (RUSS))/(HK), KV-G25M11)					
R603	1-249-416-11	CARBON 820	5% 1/4W	R857	1-249-438-11	CARBON 56K	5% 1/4W
R604	1-249-416-11	CARBON 820	5% 1/4W	R858	1-216-370-11	METAL OXIDE 1.2	5% 2W FZ
				R860	1-247-887-00	CARBON 220K	5% 1/4W
R606	1-215-915-11	METAL OXIDE 470	5% 3W F	R881	1-216-043-91	METAL GLAZE 560	5% 1/10W
R608	1-535-303-00	LEAD, JUMPER (5.0MM)		R882	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W
R609	1-249-381-11	CARBON 1	5% 1/4W				
R610	1-215-924-00	METAL OXIDE 15K	5% 3W F	R883	1-216-121-00	METAL GLAZE 1M	5% 1/10W
R611	1-202-933-61	FUSIBLE 0.1	10% 1/2W F	R895	1-216-348-00	METAL OXIDE 0.82	5% 1W F
				R898	1-249-421-11	CARBON 2.2K	5% 1/4W
R612	1-249-377-11	CARBON 0.47	5% 1/4W F	R902	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R613	1-249-377-11	CARBON 0.47	5% 1/4W F	R904	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R614	1-215-877-11	METAL OXIDE 22K	5% 1W F				
R615	1-249-389-11	CARBON 4.7	5% 1/4W	R905	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R616	<b>A</b> 1-218-265-91	METAL 8.2M	5% 1W	R906	1-216-049-00	METAL GLAZE 1K	5% 1/10W
				R907	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
				R908	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
				R909	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W

F1

V1

The components identified by shading  
and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<TRANSFORMER>				<IC>			
T1601	A-1-424-436-11	TRANSFORMER LINE FILTER		IC01	8-759-324-28	IC P83C654	
T1602	A-1-424-436-11	TRANSFORMER LINE FILTER		IC02	8-759-298-63	IC SAA5281ZP/E	
*****				<CHIP CONDUCTOR>			
*A-1347-103-A V1 BOARD, COMPLETE (KV-G25M11)				JR02	1-216-295-00	CONDUCTOR, CHIP (2012)	
*****				JR03	1-216-295-00	CONDUCTOR, CHIP (2012)	
<CAPACITOR>				JR04	1-216-295-00	CONDUCTOR, CHIP (2012)	
C01	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V		JR07	1-216-295-00	CONDUCTOR, CHIP (2012)	
C02	1-124-907-11	ELECT 10MF 20% 50V		JR08	1-216-295-00	CONDUCTOR, CHIP (2012)	
C03	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V		<COIL>			
C04	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V		L01	1-410-464-11	INDUCTOR 3.3UH	
C05	1-124-907-11	ELECT 10MF 20% 50V		L03	1-410-464-11	INDUCTOR 3.3UH	
C06	1-163-227-11	CERAMIC CHIP 10PF 0.5PF 50V		L04	1-410-464-11	INDUCTOR 3.3UH	
C07	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V		L05	1-410-464-11	INDUCTOR 3.3UH	
C08	1-163-097-00	CERAMIC CHIP 15PF 5% 50		L06	1-410-464-11	INDUCTOR 3.3UH	
C09	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V		<TRANSISTOR>			
C10	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V		Q01	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
C11	1-164-346-11	CERAMIC CHIP 1MF 16V		Q02	8-729-900-53	TRANSISTOR DTC114EK	
C12	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V		Q03	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
C13	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V		Q04	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
C14	1-216-295-00	CONDUCTOR, CHIP (2012)		Q05	8-729-216-22	TRANSISTOR 2SA1162-G	
C15	1-124-482-11	ELECT 33MF 20% 35V		Q06	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
C16	1-126-963-11	ELECT 4.7MF 20% 50V		Q07	8-729-019-01	TRANSISTOR 2SD2394-EF	
C17	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V		Q08	8-729-140-96	TRANSISTOR 2SD774-34	
C19	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V		Q09	8-729-901-04	TRANSISTOR DTA114EK	
C22	1-124-907-11	ELECT 10MF 20% 50V		<RESISTOR>			
C23	1-163-038-00	CERAMIC CHIP 0.1MF 25V		R01	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
C25	1-124-907-11	ELECT 10MF 20% 50V		R02	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
C26	1-124-119-00	ELECT 330MF 20% 16V		R03	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
C27	1-104-665-11	ELECT 100MF 20% 16V		R04	1-216-025-00	METAL GLAZE 100 5% 1/10W	
C28	1-163-099-00	CERAMIC CHIP 18PF 5% 50V		R05	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
C29	1-163-099-00	CERAMIC CHIP 18PF 5% 50V		R06	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
C30	1-163-099-00	CERAMIC CHIP 18PF 5% 50V		R07	1-216-025-00	METAL GLAZE 100 5% 1/10W	
C31	1-163-099-00	CERAMIC CHIP 18PF 5% 50V		R08	1-216-025-00	METAL GLAZE 100 5% 1/10W	
<CONNECTOR>				R09	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
CN01	*1-770-748-11	CONNECTOR, BOARD TO BOARD 12P		R10	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
<DIODE>				R11	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
D001	8-719-105-51	DIODE RD3.6M-B1		R12	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
D03	8-719-914-43	DIODE DAN202K		R13	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
D04	8-719-105-91	DIODE RD5.6M-B2		R16	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
D05	8-719-914-44	DIODE DAP202K		R17	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
D06	8-719-914-43	DIODE DAN202K		R18	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
<FERRITE BEAD>				R19	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
FB01	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH		R20	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
				R21	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
				R22	1-216-041-00	METAL GLAZE 470 5% 1/10W	
				R24	1-216-025-00	METAL GLAZE 100 5% 1/10W	
				R25	1-216-025-00	METAL GLAZE 100 5% 1/10W	
				R26	1-216-049-00	METAL GLAZE 1K 5% 1/10W	

**C** **F<sub>1</sub>**

- 53 -

REF. NO.	PART NO.	DESCRIPTION	REMARK
R27	1-216-071-00	METAL GLAZE 8.2K	5% 1/10W
R28	1-216-025-00	METAL GLAZE 100	5% 1/10W
R29	1-216-025-00	METAL GLAZE 100	5% 1/10W
R30	1-216-071-00	METAL GLAZE 8.2K	5% 1/10W
R31	1-216-025-00	METAL GLAZE 100	5% 1/10W
R32	1-216-071-00	METAL GLAZE 8.2K	5% 1/10W
R33	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R34	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R35	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R36	1-216-025-00	METAL GLAZE 100	5% 1/10W
R37	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R38	1-260-085-11	CARBON 68	5% 1/2W
R41	1-216-063-00	METAL GLAZE 3.9K	5% 1/10W
R43	1-216-295-00	CONDUCTOR, CHIP (2012)	
R44	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W
R45	1-216-021-00	METAL GLAZE 68	5% 1/10W
R46	1-216-021-00	METAL GLAZE 68	5% 1/10W
R47	1-216-021-00	METAL GLAZE 68	5% 1/10W

<CRYSTAL>

X01 1-579-266-31 CRYSTAL VIBRATOR

MISCELLANEOUS  
\*\*\*\*\*

1-544-453-21 SPEAKER (2CM)  
1-504-305-11 SPEAKER (5X12CM)

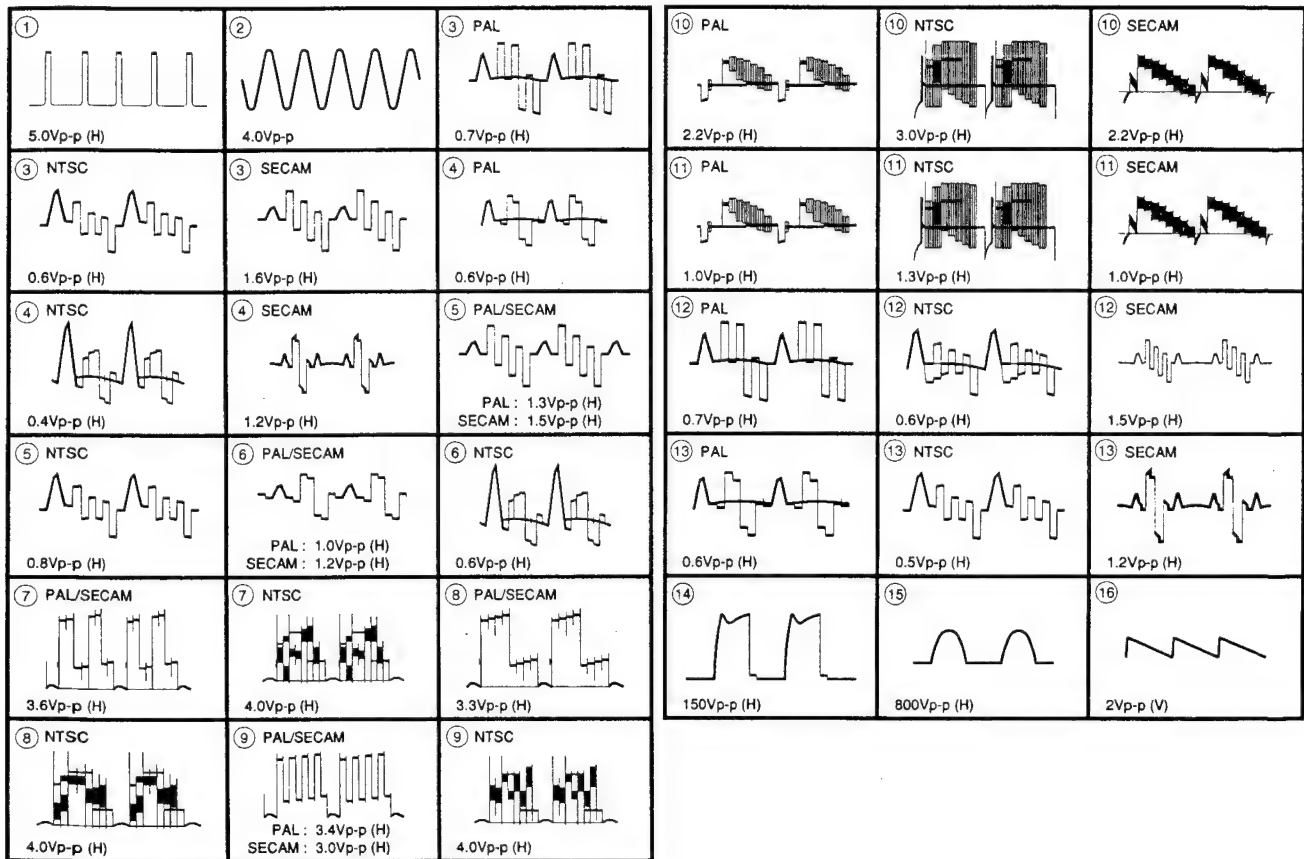
$\Delta$  8-733-234-05 PICTURE TUBE (MGOKW10K)  
 $\Delta$  8-451-404-11 DEFLECTION YOKE (Y25GLAS)  
 $\Delta$  1-403-619-11 COIL, DEMAGNETIZATION  
 $\Delta$  1-524-062-22 COIL, POWER (WITH CONNECTOR)  
Z-54250V  
(KV-G25M1 (ME) / M1 (RUSS) / M11)  
 $\Delta$  1-769-609-21 COIL, POWER (WITH CONNECTOR)  
(KV-G25M1 (HK))

ACCESSORIES AND PACKING MATERIALS  
\*\*\*\*\*

3-800-141-21 MANUAL, INSTRUCTION (KV-G25M1 (ME))  
3-800-141-41 MANUAL, INSTRUCTION  
(KV-G25M1 (HK) / M11)  
3-800-141-51 MANUAL, INSTRUCTION (KV-G25M1 (RUSS))  
\* 4-029-168-01 BAG, PROTECTION (KV-G25M11)  
\* 4-039-372-01 BAG, PROTECTION (KV-G25M1)  
3-701-910-00 SCREW, SPECIAL (DIA. 3.8X20)  
4-392-003-11 BAND, HOLD  
4-392-004-11 CLIP  
 $\Delta$  1-568-068-11 ADAPTER, CONVERSION 2P  
(KV-G25M1 (ME) / M1 (RUSS))  
\* 4-047-806-01 CUSHION (UPPER) (ASSY) (KV-G25M1)  
\* 4-047-807-01 CUSHION (LOWER) (ASSY) (KV-G25M1)  
\* 4-047-808-01 INDIVIDUAL CARTON (KV-G25M1)

REF. NO.	PART NO.	DESCRIPTION	REMARK
		REMOTE COMMANDER *****	
	1-473-323-11	REMOTE COMMANDER (RM-870)	

## A BOARD WAVEFORMS



1 Schematic Diagram of A Deck

2

3

4

5

6

7

8

9

10

11

A

B

C

D

E

F

G

H

I

J

K

L

M

N

O

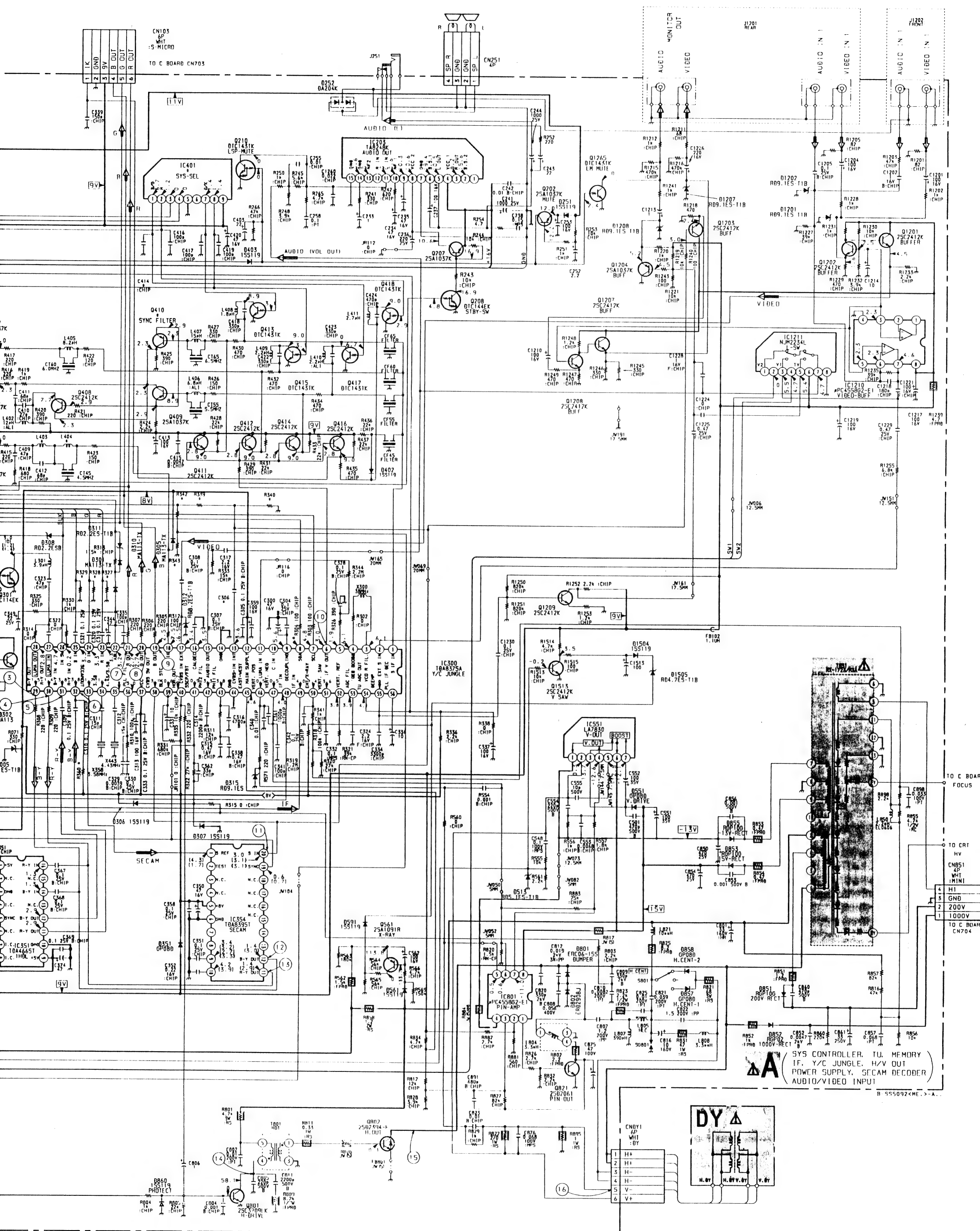
P

Diagram showing the internal circuitry of the A Deck, including various components like resistors (R), capacitors (C), integrated circuits (IC), and connectors (CN). The diagram is organized into a grid with columns numbered 1 to 11 and rows lettered A to P.

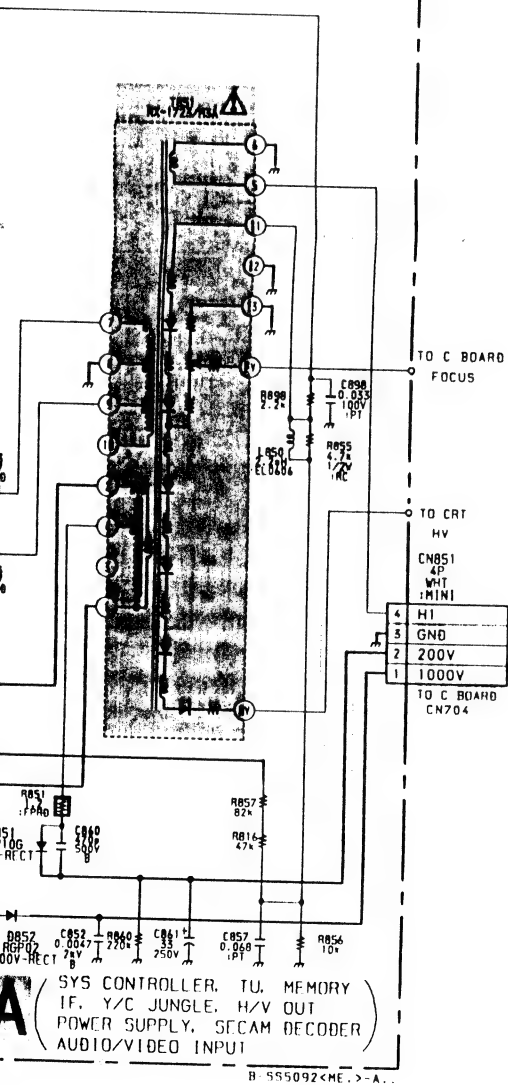
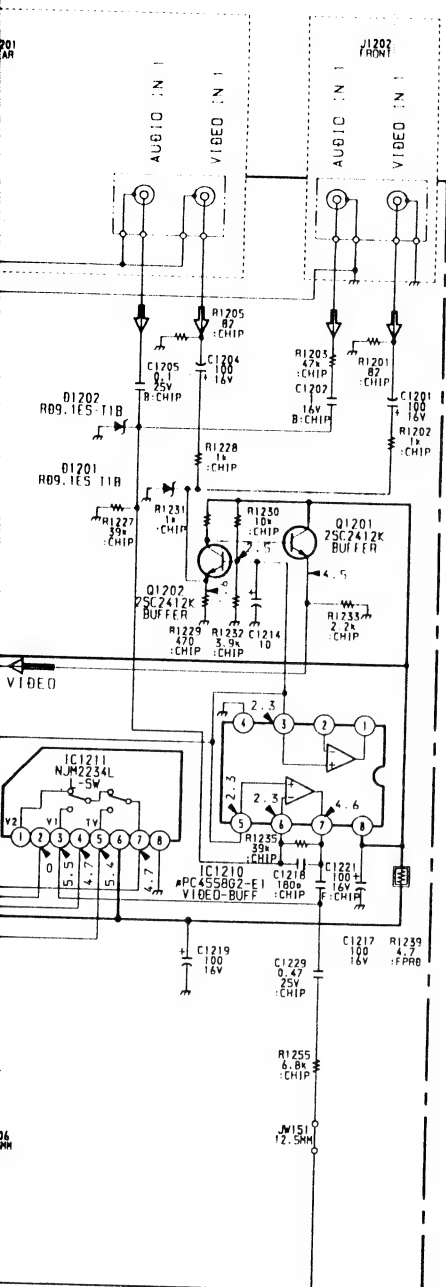
Key components and connections include:

- Connectors:** CN101 (AP, GRY, MICRO), CN106 (BT0B), CN01, CN603 (2P, WHI, MINI), CN602 (2P, WHI, MINI), CN601 (2P, WHI, WHI).
- Resistors:** R101, R102, R103, R104, R105, R106, R107, R108, R109, R110, R111, R112, R113, R114, R115, R116, R117, R118, R119, R120, R121, R122, R123, R124, R125, R126, R127, R128, R129, R130, R131, R132, R133, R134, R135, R136, R137, R138, R139, R140, R141, R142, R143, R144, R145, R146, R147, R148, R149, R150, R151, R152, R153, R154, R155, R156, R157, R158, R159, R160, R161, R162, R163, R164, R165, R166, R167, R168, R169, R170, R171, R172, R173, R174, R175, R176, R177, R178, R179, R180, R181, R182, R183, R184, R185, R186, R187, R188, R189, R190, R191, R192, R193, R194, R195, R196, R197, R198, R199, R200, R201, R202, R203, R204, R205, R206, R207, R208, R209, R210, R211, R212, R213, R214, R215, R216, R217, R218, R219, R220, R221, R222, R223, R224, R225, R226, R227, R228, R229, R230, R231, R232, R233, R234, R235, R236, R237, R238, R239, R240, R241, R242, R243, R244, R245, R246, R247, R248, R249, R250, R251, R252, R253, R254, R255, R256, R257, R258, R259, R260, R261, R262, R263, R264, R265, R266, R267, R268, R269, R270, R271, R272, R273, R274, R275, R276, R277, R278, R279, R280, R281, R282, R283, R284, R285, R286, R287, R288, R289, R290, R291, R292, R293, R294, R295, R296, R297, R298, R299, R300, R301, R302, R303, R304, R305, R306, R307, R308, R309, R310, R311, R312, R313, R314, R315, R316, R317, R318, R319, R320, R321, R322, R323, R324, R325, R326, R327, R328, R329, R330, R331, R332, R333, R334, R335, R336, R337, R338, R339, R340, R341, R342, R343, R344, R345, R346, R347, R348, R349, R350, R351, R352, R353, R354, R355, R356, R357, R358, R359, R360, R361, R362, R363, R364, R365, R366, R367, R368, R369, R370, R371, R372, R373, R374, R375, R376, R377, R378, R379, R380, R381, R382, R383, R384, R385, R386, R387, R388, R389, R390, R391, R392, R393, R394, R395, R396, R397, R398, R399, R400, R401, R402, R403, R404, R405, R406, R407, R408, R409, R410, R411, R412, R413, R414, R415, R416, R417, R418, R419, R420, R421, R422, R423, R424, R425, R426, R427, R428, R429, R430, R431, R432, R433, R434, R435, R436, R437, R438, R439, R440, R441, R442, R443, R444, R445, R446, R447, R448, R449, R450, R451, R452, R453, R454, R455, R456, R457, R458, R459, R460, R461, R462, R463, R464, R465, R466, R467, R468, R469, R470, R471, R472, R473, R474, R475, R476, R477, R478, R479, R480, R481, R482, R483, R484, R485, R486, R487, R488, R489, R490, R491, R492, R493, R494, R495, R496, R497, R498, R499, R500, R501, R502, R503, R504, R505, R506, R507, R508, R509, R510, R511, R512, R513, R514, R515, R516, R517, R518, R519, R520, R521, R522, R523, R524, R525, R526, R527, R528, R529, R530, R531, R532, R533, R534, R535, R536, R537, R538, R539, R540, R541, R542, R543, R544, R545, R546, R547, R548, R549, R550, R551, R552, R553, R554, R555, R556, R557, R558, R559, R560, R561, R562, R563, R564, R565, R566, R567, R568, R569, R570, R571, R572, R573, R574, R575, R576, R577, R578, R579, R580, R581, R582, R583, R584, R585, R586, R587, R588, R589, R590, R591, R592, R593, R594, R595, R596, R597, R598, R599, R600, R601, R602, R603, R604, R605, R606, R607, R608, R609, R610, R611, R612, R613, R614, R615, R616, R617, R618, R619, R620, R621, R622, R623, R624, R625, R626, R627, R628, R629, R630, R631, R632, R633, R634, R635, R636, R637, R638, R639, R640, R641, R642, R643, R644, R645, R646, R647, R648, R649, R650, R651, R652, R653, R654, R655, R656, R657, R658, R659, R660, R661, R662, R663, R664, R665, R666, R667, R668, R669, R670, R671, R672, R673, R674, R675, R676, R677, R678, R679, R680, R681, R682, R683, R684, R685, R686, R687, R688, R689, R690, R691, R692, R693, R694, R695, R696, R697, R698, R699, R700, R701, R702, R703, R704, R705, R706, R707, R708, R709, R710, R711, R712, R713, R714, R715, R716, R717, R718, R719, R720, R721, R722, R723, R724, R725, R726, R727, R728, R729, R730, R731, R732, R733, R734, R735, R736, R737, R738, R739, R740, R741, R742, R743, R744, R745, R746, R747, R748, R749, R750, R751, R752, R753, R754, R755, R756, R757, R758, R759, R760, R761, R762, R763, R764, R765, R766, R767, R768, R769, R770, R771, R772, R773, R774, R775, R776, R777, R778, R779, R780, R781, R782, R783, R784, R785, R786, R787, R788, R789, R790, R791, R792, R793, R794, R795, R796, R797, R798, R799, R800, R801, R802, R803, R804, R805, R806, R807, R808, R809, R810, R811, R812, R813, R814, R815, R816, R817, R818, R819, R820, R821, R822, R823, R824, R825, R826, R827, R828, R829, R830, R831, R832, R833, R834, R835, R836, R837, R838, R839, R840, R841, R842, R843, R844, R845, R846, R847, R848, R849, R850, R851, R852, R853, R854, R855, R856, R





	KV-G25M1	KV-G25M11
C018	100 :CHIP	NOT USED
C051	NOT USED	100p :CHIP
C306	0.1 25V :CHIP	0 :CHIP
CN106	NOT USED	12P :B TO B
JR103	NOT USED	0 :CHIP
R020	NOT USED	100 :CHIP
R327	0 :CHIP	150 :CHIP
R328	0 :CHIP	150 :CHIP
R329	0 :CHIP	150 :CHIP
R339	300 :CHIP	NOT USED
R340	270 :CHIP	NOT USED
R342	NOT USED	300 :CHIP
R343	NOT USED	270 :CHIP
R612	0.47 :FPRD	0.1 :FUSE
R618	NOT USED	0.1 :FUSE
R635	NOT USED	22 2W :RS



The diagram illustrates the internal circuitry of a color television receiver, centered around the TDA 4061 IC. The IC is shown as a large rectangle with pins numbered 1 through 52. The circuit is divided into several functional blocks:

- Input Section:** Includes the **IF IN** (pin 47), **TUNER** (pin 52), **AOC FOR IF TUNER** (pin 51), **VIF AMPLIFIER DEMODULATOR** (pin 48), **AFC BH** (pin 46), **AFC** (pin 45), **VIDEO IDENT** (pin 44), **VIDEO MUTE** (pin 43), **VIDEO AMPL** (pin 42), **MUTE** (pin 41), **VIDEO MUTE** (pin 40), **CVBS-SWITCH** (pin 39), **CVBS** (pin 38), **SOUND TRAP** (pin 37), **CVBS OUT (PAL)** (pin 36), **CVBS OUT (NTSC)** (pin 35), **SECAM REF** (pin 34), **SECAM** (pin 33), **SECAM REF** (pin 32), **SECAM** (pin 31), **SECAM REF** (pin 30), **SECAM** (pin 29), **SECAM REF** (pin 28), **SECAM** (pin 27), **SECAM REF** (pin 26), **SECAM** (pin 25), **SECAM REF** (pin 24), **SECAM** (pin 23), **SECAM REF** (pin 22), **SECAM** (pin 21), **SECAM REF** (pin 20), **SECAM** (pin 19), **SECAM REF** (pin 18), **SECAM** (pin 17), **SECAM REF** (pin 16), **SECAM** (pin 15), **SECAM REF** (pin 14), **SECAM** (pin 13), **SECAM REF** (pin 12), **SECAM** (pin 11), **SECAM REF** (pin 10), **SECAM** (pin 9), **SECAM REF** (pin 8), **SECAM** (pin 7), **SECAM REF** (pin 6), **SECAM** (pin 5), **SECAM REF** (pin 4), **SECAM** (pin 3), **SECAM REF** (pin 2), **SECAM** (pin 1).
- Control Section:** Includes the **12C BUS TRANSCEIVER** (pin 50), **CONTROL DAC** (pin 49), **17 x 8-BIT** (pin 48), **2 x 4-BIT** (pin 47), **VCO CONTROL** (pin 46), **REF** (pin 45), **SYNC SEP 1st LOOP** (pin 44), **VERT. SYNC SEPARATOR** (pin 43), **2nd LOOP - HOR. OUT** (pin 42), **HV DIVIDER** (pin 41), **EW GEOMETRY** (pin 40), **EHT** (pin 39), **V. OUT POS.** (pin 38), **V. OUT NEG.** (pin 37), **BACK-CURRENT STABILISER** (pin 36), **BL CURRENT** (pin 35), **BEAM DUPR** (pin 34), **R** (pin 33), **G** (pin 32), **B** (pin 31), **RGB-MATRIX OUTPUT** (pin 30), **WHITE S. CONTR** (pin 29), **RGB-MATRIX SWITCH** (pin 28), **RGB INPUT SWITCH** (pin 27), **Q-Y MATRIX SAT. CONTROL** (pin 26), **DELAY-PEAKING** (pin 25), **FILTER TUNING** (pin 24), **REF** (pin 23), **TRAP** (pin 22), **BAND-PASS** (pin 21), **SW** (pin 20), **SVHS-SWITCH** (pin 19), **CVBS-SWITCH** (pin 18), **CVBS** (pin 17), **SOUND TRAP** (pin 16), **CVBS OUT (PAL)** (pin 15), **CVBS OUT (NTSC)** (pin 14), **SECAM REF** (pin 13), **SECAM** (pin 12), **SECAM REF** (pin 11), **SECAM** (pin 10), **SECAM REF** (pin 9), **SECAM** (pin 8), **SECAM REF** (pin 7), **SECAM** (pin 6), **SECAM REF** (pin 5), **SECAM** (pin 4), **SECAM REF** (pin 3), **SECAM** (pin 2), **SECAM REF** (pin 1).
- Output Section:** Includes the **OUT** (pin 43), **Y** (pin 42), **IN** (pin 41), **OUT** (pin 40), **Y** (pin 39), **IN** (pin 38), **OUT** (pin 37), **Y** (pin 36), **IN** (pin 35), **OUT** (pin 34), **Y** (pin 33), **IN** (pin 32), **OUT** (pin 31), **Y** (pin 30), **IN** (pin 29), **OUT** (pin 28), **Y** (pin 27), **IN** (pin 26), **OUT** (pin 25), **Y** (pin 24), **IN** (pin 23), **OUT** (pin 22), **Y** (pin 21), **IN** (pin 20), **OUT** (pin 19), **Y** (pin 18), **IN** (pin 17), **OUT** (pin 16), **Y** (pin 15), **IN** (pin 14), **OUT** (pin 13), **Y** (pin 12), **IN** (pin 11), **OUT** (pin 10), **Y** (pin 9), **IN** (pin 8), **OUT** (pin 7), **Y** (pin 6), **IN** (pin 5), **OUT** (pin 4), **Y** (pin 3), **IN** (pin 2), **OUT** (pin 1).



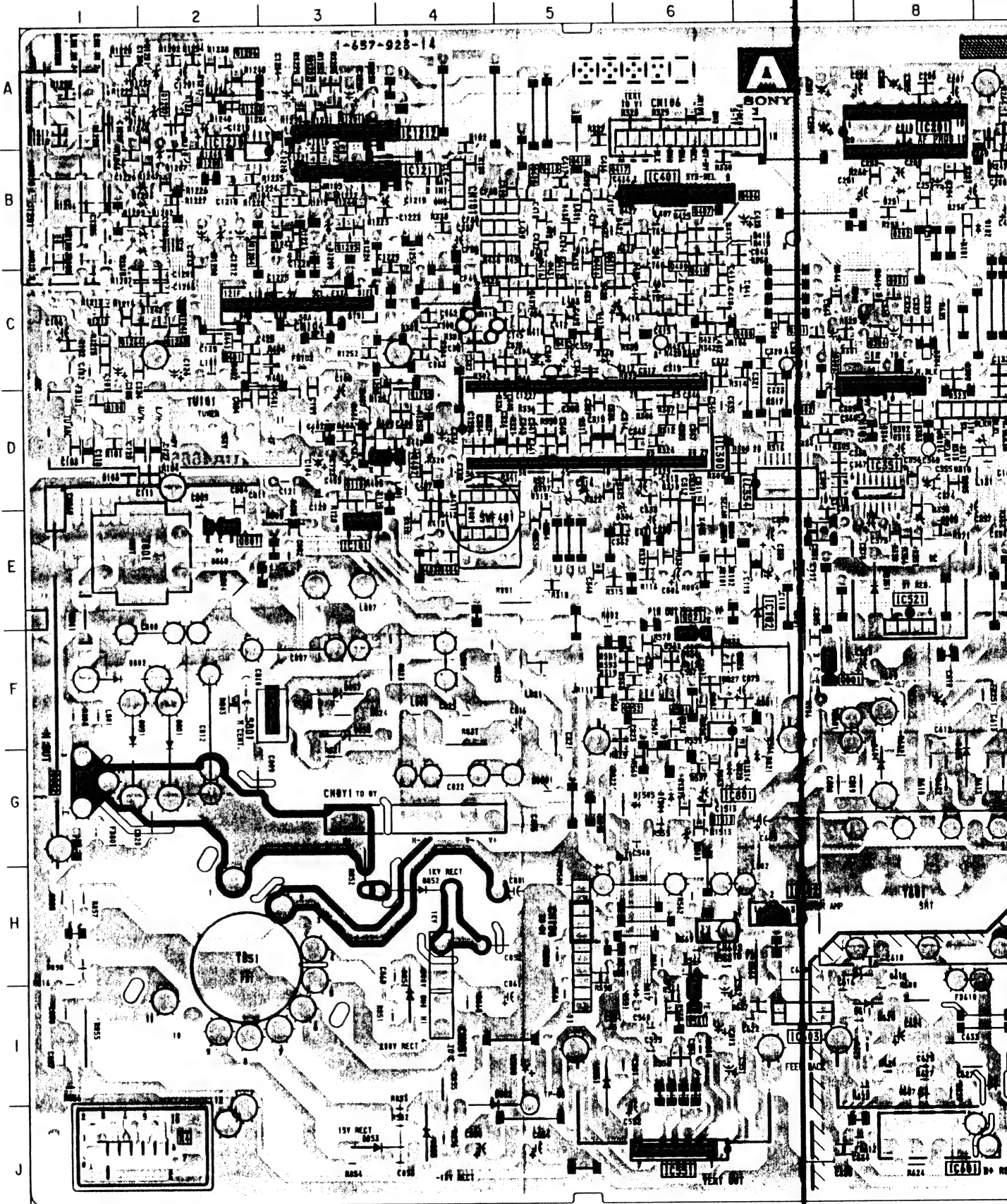
**A** [ SYS CONTROLLER, TU, MEMORY, IF, Y/C JUNGLE, H/V OUT ]  
[ POWER SUPPLY, SECAM DECODER, AUDIO/VIDEO INPUT ]

PRINTED WIRING BOARD

A BOARD

IC		DIODE	
IC001	D-11	D001	D-9
IC002	E-10	D002	C-12
IC003	E-11	D003	C-10
IC004	I-13	D004	E-12
IC005	E-10	D005	E-8
IC101	E-3	D006	I-13
IC102	E-7	D007	E-10
IC201	A-8	D008	I-13
IC202	B-10	D101	B-8
IC203	B-10	D102	B-9
IC300	D-6	D103	D-1
IC351	D-8	D251	B-8
IC354	D-7	D252	B-13
IC401	B-6	D301	C-7
IC521	E-8	D302	D-8
IC551	J-6	D303	D-8
IC601	J-8	D304	C-8
IC602	H-7	D305	D-7
IC603	I-7	D306	E-6
IC801	G-6	D307	D-5
IC1210	A-2	D308	C-10
IC1211	B-3	D309	C-8
IC1212	A-3	D310	D-9
TRANSISTOR		D311	D-9
Q001	F-7	D312	C-5
Q030	C-12	D313	D-8
Q031	C-8	D314	D-8
Q108	D-1	D315	D-5
Q109	E-12	D401	E-4
Q110	D-3	D402	B-5
Q202	B-8	D403	B-9
Q207	B-10	D513	G-6
Q208	B-10	D551	I-5
Q209	B-9	D561	H-5
Q210	B-9	D562	F-6
Q301	C-7	D581	H-5
Q302	D-7	D582	I-4
Q303	C-7	D591	I-6
Q304	C-8	D601	H-11
Q351	D-9	D602	G-11
Q401	C-2	D603	G-11
Q402	D-4	D604	G-8
Q403	E-4	D605	G-8
Q404	E-4	D606	G-9
Q405	C-5	D607	I-8
Q406	B-6	D609	I-9
Q407	B-6	D610	H-7
Q408	C-6	D611	I-7
Q409	C-6	D613	E-9
Q410	B-6	D614	E-10
Q411	B-5		
Q412	C-5		
Q413	B-5		
Q414	C-5		
Q415	B-5		
Q416	C-5		
Q417	B-5		
Q418	B-5		
Q551	F-6		
Q552	F-6		
Q561	I-6		
Q601	G-12		
Q801	E-2		
Q802	G-1		

- A Board -





**NOTE:**

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

# SECTION 9

## ELECTRICAL PARTS LIST

A

## NOTE:

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

- The components identified by  $\Delta$  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

## RESISTORS

- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

## CAPACITORS

PF :  $\mu$ F

- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
* A-1297-773-A	A BOARD, COMPLETE (KV-G25M11)	*****		C051	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
* A-1297-768-A	A BOARD, COMPLETE (KV-G25M1)	*****		C052	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
				C053	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
				C055	1-126-941-11	ELECT 470MF	20% 16V
* 1-580-798-11	CONNECTOR PIN (DY) 6P			C056	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
4-039-460-01	HOLDER, FBT			C057	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
4-382-854-11	SCREW (M3X10), P, SW (+)			C058	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3			C059	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
				C060	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
				C061	1-164-505-11	CERAMIC CHIP 2.2MF	16V
				C072	1-126-941-11	ELECT 470MF	20% 16V
				C074	1-163-001-11	CERAMIC CHIP 220PF	10% 50V
				C101	1-163-029-11	CERAMIC CHIP 0.0047MF	50V
				C105	1-104-665-11	ELECT 100MF	20% 16V
				C106	1-124-907-11	ELECT 10MF	20% 50V
				C108	1-126-942-61	ELECT 1000MF	20% 16V
				C109	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
				C110	1-136-165-00	FILM 0.1MF	5% 50V
				C111	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
				C114	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
				C115	1-163-093-00	CERAMIC CHIP 10PF	5% 50V
				C116	1-136-165-00	FILM 0.1MF	5% 50V
				C117	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
				C118	1-126-965-11	ELECT 22MF	20% 50V
				C119	1-163-059-00	CERAMIC CHIP 0.01MF	50V
				C120	1-130-493-00	MYLAR 0.068MF	5% 50V
				C121	1-130-493-00	MYLAR 0.068MF	5% 50V
				C122	1-104-665-11	ELECT 100MF	20% 16V
				C124	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
				C125	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
				C127	1-163-077-00	CERAMIC CHIP 0.1MF	10% 25V
				C128	1-163-077-00	CERAMIC CHIP 0.1MF	10% 25V
				C233	1-124-903-11	ELECT 1MF	20% 50V
				C234	1-126-967-11	ELECT 47MF	20% 16V
				C235	1-126-967-11	ELECT 47MF	20% 16V
				C236	1-126-968-11	ELECT 100MF	20% 35V
				C237	1-104-665-11	ELECT 100MF	20% 16V
				C238	1-136-167-00	FILM 0.15MF	5% 50V
				C241	1-126-942-61	ELECT 1000MF	20% 25V
				C242	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
				C243	1-128-551-11	ELECT 22MF	20% 25V
				C244	1-126-942-61	ELECT 1000MF	20% 25V
				C253	1-104-665-11	ELECT 100MF	20% 16V
				C255	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
				C258	1-130-495-00	MYLAR 0.1MF	5% 50V
				C300	1-126-967-11	ELECT 47MF	20% 16V
				C304	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
				C305	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
				C306	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
							(KV-G 25M1)
				C306	1-216-295-91	CONDUCTOR, CHIP (KV-G25M11)	
				C307	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
				C308	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C001	1-163-011-11	CERAMIC CHIP 0.0015MF	10% 50V				
C002	1-126-965-11	ELECT 22MF	20% 50V				
C003	1-163-117-00	CERAMIC CHIP 100PF	5% 50V				
C004	1-126-961-11	ELECT 2.2MF	20% 50V				
C007	1-124-902-00	ELECT 0.47MF	20% 50V				
C008	1-163-117-00	CERAMIC CHIP 100PF	5% 50V				
C009	1-163-133-00	CERAMIC CHIP 470PF	5% 50V				
C010	1-163-037-11	CERAMIC CHIP 0.022MF	10% 50V				
C011	1-126-967-11	ELECT 47MF	20% 16V				
C012	1-163-117-00	CERAMIC CHIP 100PF	5% 50V				
C013	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V				
C014	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V				
C015	1-101-884-00	CERAMIC 56PF	5% 50V				
C016	1-101-884-00	CERAMIC 56PF	5% 50V				
C017	1-163-117-00	CERAMIC CHIP 100PF	5% 50V				
C018	1-163-117-00	CERAMIC CHIP 100PF	5% 50V				
							(KV-G25M11)
C019	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V				
C020	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V				
C021	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V				
C022	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V				
C023	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V				
C024	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V				
C025	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V				
C026	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V				
C027	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V				
C028	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V				
C029	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V				
C034	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C035	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V				
C036	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V				
C037	1-163-117-00	CERAMIC CHIP 100PF	5% 50V				
C038	1-163-117-00	CERAMIC CHIP 100PF	5% 50V				
C040	1-163-117-00	CERAMIC CHIP 100PF	5% 50V				
C042	1-163-117-00	CERAMIC CHIP 100PF	5% 50V				
C044	1-163-117-00	CERAMIC CHIP 100PF	5% 50V				
C045	1-163-117-00	CERAMIC CHIP 100PF	5% 50V				
C046	1-163-117-00	CERAMIC CHIP 100PF	5% 50V				
C047	1-163-117-00	CERAMIC CHIP 100PF	5% 50V				
C048	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C049	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C050	1-124-903-11	ELECT 1MF	20% 50V				



A

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C309	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C424	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C310	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C501	1-102-228-00	CERAMIC 470PF	10% 500V
C311	1-163-231-11	CERAMIC CHIP 15PF	5% 50V	C523	1-104-665-11	ELECT 100MF	20% 16V
C312	1-163-231-11	CERAMIC CHIP 15PF	5% 50V	C548	1-106-220-00	MYLAR 0.1MF	10% 100V
C313	1-104-665-11	ELECT 100MF	20% 16V	C551	1-126-968-11	ELECT 100MF	20% 35V
C314	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V	C552	1-126-968-11	ELECT 100MF	20% 35V
C315	1-165-320-11	CERAMIC CHIP 0.47MF	10% 16V	C553	1-163-019-00	CERAMIC CHIP 0.0068MF	10% 50V
C316	1-102-125-00	CERAMIC 0.0047MF	10% 50V	C554	1-102-244-00	CERAMIC 220PF	10% 500V
C317	1-164-505-11	CERAMIC CHIP 2.2MF	16V	C555	1-101-804-00	CERAMIC 10PF	5% 500V
C319	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C562	1-104-665-11	ELECT 100MF	20% 16V
C320	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C601	1-162-318-11	CERAMIC 0.001MF	10% 500V
C321	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C602	1-102-050-00	CERAMIC 0.01MF	500V
C322	1-216-295-91	CONDUCTOR, CHIP		C603	1-161-830-00	CERAMIC 0.0047MF	500V
C323	1-163-243-11	CERAMIC CHIP 47PF	5% 50V	C604	1-113-608-11	ELECT(SOLID) 470MF	20% 400V
C324	1-164-337-11	CERAMIC CHIP 2.2MF	16V	C606	1-161-830-00	CERAMIC 0.0047MF	500V
C325	1-163-093-00	CERAMIC CHIP 10PF	5% 50V	C608	1-104-332-11	CERAMIC 470PF	10% 2KV
C326	1-163-095-00	CERAMIC CHIP 12PF	5% 50V	C609	1-124-347-00	ELECT 100MF	20% 160V
C327	1-163-093-00	CERAMIC CHIP 10PF	5% 50V	C610	1-126-943-11	ELECT 2200MF	20% 25V
C328	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C611	$\Delta$ 1-104-985-51	CERAMIC 470PF	10% 400V
C329	1-163-016-00	CERAMIC CHIP 0.0039MF	10% 50V	C612	1-102-228-00	CERAMIC 470PF	10% 500V
C330	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C613	1-102-824-00	CERAMIC 470PF	5% 50V
C331	1-124-907-11	ELECT 10MF	20% 50V	C614	1-126-943-11	ELECT 2200MF	20% 25V
C332	1-136-165-00	FILM 0.1MF	5% 50V	C616	1-102-228-00	CERAMIC 470PF	10% 500V
C333	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C618	1-163-005-11	CERAMIC CHIP 470PF	10% 50V
C334	1-164-182-11	CERAMIC CHIP 0.0033MF	10% 50V	C619	1-162-116-00	CERAMIC 680PF	10% 2KV
C335	1-102-973-00	CERAMIC 100PF	5% 50V	C621	$\Delta$ 1-104-705-51	FILM 0.1MF	20% 250V
C336	1-124-907-11	ELECT 10MF	20% 50V	C622	1-106-383-00	MYLAR 0.047MF	10% 200V
C337	1-104-665-11	ELECT 100MF	20% 16V	C623	1-124-120-11	ELECT 220MF	20% 16V
C338	1-165-320-11	CERAMIC CHIP 0.47MF	10% 16V	C624	1-126-942-61	ELECT 1000MF	20% 16V
C339	1-163-121-00	CERAMIC CHIP 150PF	5% 50V	C625	1-102-074-00	CERAMIC 0.001MF	10% 50V
C340	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C627	1-162-116-00	CERAMIC 680PF	10% 2KV
C341	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C630	$\Delta$ 1-104-985-51	CERAMIC 470PF	10% 400V
C342	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C631	1-161-830-00	CERAMIC 0.0047MF	500V
C344	1-126-963-11	ELECT 4.7MF	20% 50V	C632	$\Delta$ 1-104-985-51	CERAMIC 470PF	10% 400V
C349	1-128-551-11	ELECT 22MF	20% 25V	C633	1-161-754-00	CERAMIC 0.001MF	10% 3KV
C350	1-126-967-11	ELECT 47MF	20% 16V	C634	1-163-005-11	CERAMIC CHIP 470PF	10% 50V
C351	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C801	1-123-024-21	ELECT 33MF	160V
C352	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V	C802	1-106-367-00	MYLAR 0.01MF	10% 200V
C358	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C804	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C359	1-104-665-11	ELECT 100MF	20% 16V	C805	1-102-244-00	CERAMIC 220PF	10% 500V
C361	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C806	1-124-903-11	ELECT 1MF	20% 50V
C362	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	C807	1-136-540-11	FILM 0.82MF	5% 200V
C367	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C808	1-130-895-00	FILM 0.056MF	10% 400V
C368	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C809	1-162-115-00	CERAMIC 330PF	10% 2KV
C369	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C810	1-106-365-00	MYLAR 0.0082MF	200V
C370	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C811	1-162-318-11	CERAMIC 0.001MF	10% 500V
C374	1-124-910-11	ELECT 47MF	20% 50V	C812	1-136-617-11	FILM 0.019MF	3% 2KV
C375	1-124-910-11	ELECT 47MF	20% 50V	C816	1-123-947-00	ELECT 10MF	20% 160V
C402	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C820	1-162-115-00	CERAMIC 330PF	10% 2KV
C403	1-126-965-11	ELECT 22MF	20% 50V	C821	1-106-391-12	MYLAR 0.1MF	10% 200V
C405	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V	C822	1-136-541-11	FILM 1.5MF	5% 200V
C406	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V	C823	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C407	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V	C825	1-106-367-00	MYLAR 0.01MF	10% 200V
C408	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V	C850	1-124-480-11	ELECT 470MF	20% 25V
C409	1-163-109-00	CERAMIC CHIP 47PF	5% 50V	C852	1-104-574-11	CERAMIC 0.0047MF	10% 2KV
C410	1-163-103-00	CERAMIC CHIP 27PF	5% 50V	C853	1-162-318-11	CERAMIC 0.001MF	10% 500V
C411	1-163-113-00	CERAMIC CHIP 68PF	5% 50V	C854	1-124-480-11	ELECT 470MF	20% 25V
C412	1-163-113-00	CERAMIC CHIP 68PF	5% 50V	C856	1-162-318-11	CERAMIC 0.001MF	10% 500V
C413	1-104-665-11	ELECT 100MF	20% 16V	C857	1-136-165-00	FILM 0.1MF	5% 50V
C414	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C860	1-102-228-00	CERAMIC 470PF	10% 500V
C415	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V	C861	1-107-654-11	ELECT 33MF	20% 250V
C416	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C875	1-124-910-11	ELECT 47MF	20% 50V
C417	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C876	1-108-702-11	MYLAR 0.068MF	10% 100V
C418	1-163-129-00	CERAMIC CHIP 330PF	5% 50V	C891	1-163-007-11	CERAMIC CHIP 680PF	10% 50V
C419	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C898	1-108-702-11	MYLAR 0.068MF	10% 100V
C420	1-126-967-11	ELECT 47MF	20% 16V	C901	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C422	1-163-129-00	CERAMIC CHIP 330PF	5% 50V	C902	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C423	1-163-129-00	CERAMIC CHIP 330PF	5% 50V	C1201	1-104-665-11	ELECT 100MF	20% 16V
				C1202	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

A

REF. NO.	PART NO.	DESCRIPTION	REMARK
C1204	1-104-665-11	ELECT 100MF 20%	16V
C1205	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1210	1-104-665-11	ELECT 100MF 20%	16V
C1213	1-124-903-11	ELECT 1MF 20%	50V
C1214	1-124-907-11	ELECT 10MF 20%	50V
C1217	1-104-665-11	ELECT 100MF 20%	16V
C1218	1-163-123-00	CERAMIC CHIP 180PF 5%	50V
C1219	1-104-665-11	ELECT 100MF 20%	16V
C1221	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C1224	1-216-295-91	CONDUCTOR, CHIP	
C1225	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C1226	1-124-120-11	ELECT 220MF 20%	16V
C1228	1-164-346-11	CERAMIC CHIP 1MF	16V
C1229	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C1230	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1260	1-163-037-11	CERAMIC CHIP 0.022MF 10%	50V
C1513	1-124-122-11	ELECT 100MF 20%	50V
<FILTER>			
CF45	1-527-943-00	FILTER, CERAMIC	
CF55	1-567-099-00	FILTER, CERAMIC	
CF60	1-567-100-00	FILTER, CERAMIC	
CF65	1-567-101-11	FILTER, CERAMIC	
<CONNECTOR>			
CN101	*1-560-124-00	PLUG, CONNECTOR (2.5MM) 4P	
CN103	*1-564-509-11	PLUG, CONNECTOR 6P	
CN106	*1-770-747-11	CONNECTOR, BOARD TO BOARD 12P (KV-G25M11)	
CN251	*1-564-507-11	PLUG, CONNECTOR 4P	
CN601	*1-580-843-11	PIN, CONNECTOR (POWER)	
CN602	*1-508-765-00	PIN, CONNECTOR (5mm PITCH) 3P	
CN603	*1-508-786-00	PIN, CONNECTOR (5mm PITCH) 2P	
CN851	*1-508-766-00	PIN, CONNECTOR (5mm PITCH) 4P	
<TRIMMER>			
CT45	1-579-690-11	TRAP, CERAMIC	
CT55	1-404-801-11	TRAP, CERAMIC	
CT60	1-409-429-11	TRAP, CERAMIC	
CT65	1-409-327-00	TRAP, CERAMIC (6.5MHZ)	
<DIODE>			
D001	8-719-109-81	DIODE RD4.7ESB2	
D002	8-719-911-19	DIODE 1SS119-25	
D003	8-719-041-97	DIODE MA113-(TX)	
D005	8-719-109-84	DIODE RD5.1ESB1	
D008	8-719-109-89	DIODE RD5.6ESB2	
D103	8-719-914-42	DIODE DA204K	
D251	8-719-911-19	DIODE 1SS119-25	
D252	8-719-914-42	DIODE DA204K	
D301	8-719-041-97	DIODE MA113-(TX)	
D305	8-719-041-97	DIODE MA113-(TX)	
D306	8-719-911-19	DIODE 1SS119-25	
D307	8-719-911-19	DIODE 1SS119-25	
D308	8-719-109-54	DIODE RD2.2ESB2	
D310	8-719-041-97	DIODE MA113-(TX)	
D311	8-719-109-68	DIODE RD3.6ESB1	
D312	8-719-110-08	DIODE RD8.2ESB2	
D315	8-719-121-24	DIODE RD9.1ESL	
D351	8-719-908-03	DIODE GP08D	
D399	8-719-121-24	DIODE RD9.1ESL	
D401	8-719-421-40	DIODE MA77	
D402	8-719-911-19	DIODE 1SS119-25	
D403	8-719-911-19	DIODE 1SS119-25	
D513	8-719-109-84	DIODE RD5.1ESB1	
D551	8-719-908-03	DIODE GP08D	

REF. NO.	PART NO.	DESCRIPTION	REMARK
D561	8-719-911-19	DIODE 1SS119-25	
D591	8-719-911-19	DIODE 1SS119-25	
D601	8-719-052-84	DIODE LN4SB60	
D602	8-719-108-18	THYRISTOR 5P6M	
D603	8-719-110-36	DIODE RD13ESB2	
D604	8-719-301-64	DIODE RU4DS	
D605	8-719-510-73	DIODE S3L20UF4	
D606	8-719-510-73	DIODE S3L20UF4	
D607	8-719-510-26	DIODE D1NL20-TA	
D609	8-719-510-26	DIODE D1NL20-TA	
D610	8-719-510-26	DIODE D1NL20-TA	
D611	8-719-510-26	DIODE D1NL20-TA	
D801	8-719-945-80	DIODE ERC06-15S	
D802	8-719-900-26	DIODE ERD29-08J	
D851	8-719-302-43	DIODE EL1Z	
D852	8-719-028-72	DIODE RGP02-17EL-6433	
D853	8-719-302-43	DIODE EL1Z	
D855	8-719-302-43	DIODE EL1Z	
D857	8-719-908-03	DIODE GP08D	
D858	8-719-908-03	DIODE GP08D	
D860	8-719-911-19	DIODE 1SS119-25	
D891	8-719-945-80	DIODE ERC06-15S	
D901	8-719-054-60	DIODE LNK0220022G	
D1201	8-719-121-24	DIODE RD9.1ESL	
D1202	8-719-121-24	DIODE RD9.1ESL	
D1207	8-719-121-24	DIODE RD9.1ESL	
D1208	8-719-121-24	DIODE RD9.1ESL	
D1504	8-719-911-19	DIODE 1SS119-25	
D1505	8-719-109-81	DIODE RD4.7ESB2	
<FUSE>			
F601	$\Delta$ 1-532-237-11	FUSE, TIME-LAG (BET) 3.15A/250V	
	1-533-223-11	CLIP, FUSE ; F601	
<FERRITE BEAD>			
FB101	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB102	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB251	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB601	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB603	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB610	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB612	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB801	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
<IC>			
IC001	8-752-873-18	IC CXP85116B-642S	
	*4-049-131-01	CASE (A), SHIELD ; IC001	
IC002	8-759-805-37	IC L78LR05D-MA	
IC003	8-759-093-95	IC CAT24C04P	
IC004	8-741-790-11	ELEMENT, RAY-CATCHER SBX1790-11	
IC102	8-759-157-40	IC uPC574J	
IC203	8-759-336-30	IC TA8223K	
IC300	8-759-365-26	IC TDA8375A	
IC351	8-759-288-85	IC TDA4665T-T	
IC354	8-759-251-56	IC TDA8395T	
IC401	8-759-800-65	IC LA7910	
IC521	8-759-195-63	IC PQ09RE11	
IC551	8-759-801-98	IC LA7830	
IC601	8-749-010-84	IC STR-S6708	
IC602	8-749-920-61	IC SE-135N	
IC603	$\Delta$ 8-749-010-59	PHOTO COUPLER PC123F2	
IC801	8-759-100-96	IC uPC4558G2	
IC1210	8-759-100-96	IC uPC4558G2	
IC1211	8-759-711-23	IC NJM2234L	

A

REF. NO.	PART NO.	DESCRIPTION	REMARK
<JACK>			
J251	1-770-785-11	JACK	
J1201	1-770-660-11	JACK BLOCK, PIN 4P	
J1202	1-695-238-11	JACK BLOCK, PIN 2P	
<CHIP CONDUCTOR>			
JR101	1-216-295-91	CONDUCTOR, CHIP	
JR103	1-216-295-91	CONDUCTOR, CHIP (KV-G25M11)	
JR112	1-216-295-91	CONDUCTOR, CHIP	
JR116	1-216-295-91	CONDUCTOR, CHIP	
<COIL>			
L001	1-408-397-00	INDUCTOR 1UH	
L002	1-410-509-11	INDUCTOR 10UH	
L003	1-408-411-00	INDUCTOR 15UH	
L101	1-410-470-11	INDUCTOR 10UH	
L301	1-408-404-00	INDUCTOR 3.9UH	
L401	1-410-498-11	INDUCTOR 1.2UH	
L402	1-410-510-11	INDUCTOR 12UH	
L403	1-410-510-11	INDUCTOR 12UH	
L404	1-410-508-11	INDUCTOR 8.2UH	
L405	1-410-508-11	INDUCTOR 8.2UH	
L406	1-410-507-11	INDUCTOR 6.8UH	
L407	1-410-511-11	INDUCTOR 15UH	
L408	1-410-500-11	INDUCTOR 1.8UH	
L409	1-410-501-11	INDUCTOR 2.2UH	
L410	1-410-501-11	INDUCTOR 2.2UH	
L411	1-410-502-11	INDUCTOR 2.7UH	
L802	1-412-527-11	INDUCTOR 15UH	
L804	1-459-075-00	COIL,DYNAMIC CONVERSION CHOKE	
L805	1-459-907-11	COIL, HORIZONTAL LINEARITY	
L807	1-459-390-00	COIL (WITH CORE)	
L808	1-412-553-11	INDUCTOR 3.3mH	
L821	1-459-111-00	COIL, DRAM CORE (CDI)	
L850	1-408-947-00	INDUCTOR 2.2mH	
<TRANSISTOR>			
Q030	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q108	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q109	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q110	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q202	8-729-216-22	TRANSISTOR 2SA1162-G	
Q207	8-729-216-22	TRANSISTOR 2SA1162-G	
Q208	8-729-421-19	TRANSISTOR UN2213	
Q210	8-729-424-67	TRANSISTOR UN2216	
Q301	8-729-421-22	TRANSISTOR UN2211	
Q303	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q402	8-729-922-66	TRANSISTOR 2SC2410SN	
Q403	8-729-424-67	TRANSISTOR UN2216	
Q404	8-729-424-67	TRANSISTOR UN2216	
Q405	8-729-216-22	TRANSISTOR 2SA1162-G	
Q406	8-729-216-22	TRANSISTOR 2SA1162-G	
Q407	8-729-216-22	TRANSISTOR 2SA1162-G	
Q408	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q409	8-729-216-22	TRANSISTOR 2SA1162-G	
Q410	8-729-216-22	TRANSISTOR 2SA1162-G	
Q411	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q412	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q413	8-729-424-67	TRANSISTOR UN2216	
Q414	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q415	8-729-424-67	TRANSISTOR UN2216	
Q416	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q417	8-729-424-67	TRANSISTOR UN2216	
Q418	8-729-424-67	TRANSISTOR UN2216	
Q561	8-729-200-17	TRANSISTOR 2SA1091-O	
Q601	8-729-422-27	TRANSISTOR 2SD601A-Q	

REF. NO.	PART NO.	DESCRIPTION	REMARK
Q801	8-729-140-96	TRANSISTOR 2SD774-34	
Q802	8-729-016-32	TRANSISTOR 2SC4927-01	
Q821	8-729-018-99	TRANSISTOR 2SD2394-F	
Q902	8-729-421-19	TRANSISTOR UN2213	
Q903	8-729-421-19	TRANSISTOR UN2213	
Q1201	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q1202	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q1203	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q1204	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1207	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q1208	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q1209	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q1265	8-729-424-67	TRANSISTOR UN2216	
Q1513	8-729-422-27	TRANSISTOR 2SD601A-Q	
<RESISTOR>			
R001	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R002	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R003	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R004	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R007	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R008	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R009	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R010	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R012	1-216-017-91	METAL GLAZE 47	5% 1/10W
R013	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R014	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R015	1-216-043-91	METAL GLAZE 560	5% 1/10W
R016	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R017	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R018	1-216-033-00	METAL GLAZE 220	5% 1/10W
R019	1-216-101-00	METAL GLAZE 150K	5% 1/10W
R020	1-216-025-91	METAL GLAZE 100	5% 1/10W
R021	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R025	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R027	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R028	1-216-025-91	METAL GLAZE 100	5% 1/10W
R029	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R031	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R033	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R035	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R036	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R038	1-216-033-00	METAL GLAZE 220	5% 1/10W
R040	1-216-033-00	METAL GLAZE 220	5% 1/10W
R041	1-216-025-91	METAL GLAZE 100	5% 1/10W
R042	1-216-039-00	METAL GLAZE 390	5% 1/10W
R045	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R047	1-216-025-91	METAL GLAZE 100	5% 1/10W
R048	1-216-025-91	METAL GLAZE 100	5% 1/10W
R053	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R054	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R057	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R060	1-216-037-00	METAL GLAZE 330	5% 1/10W
R061	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R062	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R063	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R065	1-216-033-00	METAL GLAZE 220	5% 1/10W
R066	1-216-033-00	METAL GLAZE 220	5% 1/10W
R067	1-216-033-00	METAL GLAZE 220	5% 1/10W
R068	1-216-025-91	METAL GLAZE 100	5% 1/10W
R071	1-216-037-00	METAL GLAZE 330	5% 1/10W
R076	1-216-025-91	METAL GLAZE 100	5% 1/10W
R077	1-216-025-91	METAL GLAZE 100	5% 1/10W
R090	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R101	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R102	1-216-049-91	METAL GLAZE 1K	5% 1/10W

(KV-G25M11)

A

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R113	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R344	1-216-129-00	METAL GLAZE 2.2M	5% 1/10W
R114	1-216-041-00	METAL GLAZE 470	5% 1/10W	R351	1-216-001-00	METAL GLAZE 10	5% 1/10W
R115	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R355	1-216-001-00	METAL GLAZE 10	5% 1/10W
R116	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R356	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R117	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R360	1-208-291-11	METAL GLAZE 4.7M	5% 1/10W
R118	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R403	1-216-021-00	METAL GLAZE 68	5% 1/10W
R119	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W	R406	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R120	1-216-109-00	METAL GLAZE 330K	5% 1/10W	R407	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W
R131	1-216-464-11	METAL OXIDE 18K	5% 2W F	R408	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
R180	1-216-033-00	METAL GLAZE 220	5% 1/10W	R409	1-216-025-91	METAL GLAZE 100	5% 1/10W
R181	1-216-033-00	METAL GLAZE 220	5% 1/10W	R410	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R182	1-216-033-00	METAL GLAZE 220	5% 1/10W	R411	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R241	1-216-037-00	METAL GLAZE 330	5% 1/10W	R412	1-216-069-00	METAL GLAZE 6.8K	5% 1/10W
R242	1-216-044-00	METAL GLAZE 620	5% 1/10W	R413	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R243	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R414	1-216-041-00	METAL GLAZE 470	5% 1/10W
R244	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R415	1-216-033-00	METAL GLAZE 220	5% 1/10W
R245	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W	R416	1-216-033-00	METAL GLAZE 220	5% 1/10W
R248	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W	R417	1-216-033-00	METAL GLAZE 220	5% 1/10W
R250	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R418	1-216-045-00	METAL GLAZE 680	5% 1/10W
R251	1-216-295-91	CONDUCTOR, CHIP		R419	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R252	1-249-411-11	CARBON 330	5% 1/4W	R420	1-216-039-00	METAL GLAZE 390	5% 1/10W
R253	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R421	1-216-033-00	METAL GLAZE 220	5% 1/10W
R254	1-249-389-11	CARBON 4.7	5% 1/4W	R422	1-216-027-00	METAL GLAZE 120	5% 1/10W
R265	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R423	1-216-029-00	METAL GLAZE 150	5% 1/10W
R266	1-216-089-91	METAL GLAZE 47K	5% 1/10W	R424	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R302	1-216-295-91	CONDUCTOR, CHIP		R425	1-216-039-00	METAL GLAZE 390	5% 1/10W
R303	1-216-025-91	METAL GLAZE 100	5% 1/10W	R426	1-216-029-00	METAL GLAZE 150	5% 1/10W
R304	1-216-025-91	METAL GLAZE 100	5% 1/10W	R427	1-216-037-00	METAL GLAZE 330	5% 1/10W
R305	1-216-025-91	METAL GLAZE 100	5% 1/10W	R428	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R306	1-216-025-91	METAL GLAZE 100	5% 1/10W	R429	1-216-039-00	METAL GLAZE 390	5% 1/10W
R307	1-216-025-91	METAL GLAZE 100	5% 1/10W	R430	1-216-041-00	METAL GLAZE 470	5% 1/10W
R308	1-216-033-00	METAL GLAZE 220	5% 1/10W	R431	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R309	1-216-033-00	METAL GLAZE 220	5% 1/10W	R432	1-216-041-00	METAL GLAZE 470	5% 1/10W
R310	1-216-097-91	METAL GLAZE 100K	5% 1/10W	R433	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R311	1-216-075-00	METAL GLAZE 12K	5% 1/10W	R434	1-216-041-00	METAL GLAZE 470	5% 1/10W
R312	1-216-025-91	METAL GLAZE 100	5% 1/10W	R435	1-216-041-00	METAL GLAZE 470	5% 1/10W
R313	1-216-089-91	METAL GLAZE 47K	5% 1/10W	R436	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R314	1-216-295-91	CONDUCTOR, CHIP		R437	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R315	1-216-295-91	CONDUCTOR, CHIP		R440	1-216-029-00	METAL GLAZE 150	5% 1/10W
R318	1-216-099-00	METAL GLAZE 120K	5% 1/10W	R521	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R319	1-216-123-11	METAL GLAZE 1.2M	5% 1/10W	R552	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R320	1-216-083-00	METAL GLAZE 27K	5% 1/10W	R553	1-216-089-91	METAL GLAZE 47K	5% 1/10W
R321	1-216-689-11	METAL CHIP 39K	0.50% 1/10W	R554	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
R322	1-216-083-00	METAL GLAZE 27K	5% 1/10W	R555	1-249-429-11	CARBON 10K	5% 1/4W
R325	1-216-037-00	METAL GLAZE 330	5% 1/10W	R556	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R326	1-216-039-00	METAL GLAZE 390	5% 1/10W	R557	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
R327	1-216-029-00	METAL GLAZE 150	5% 1/10W	R560	1-216-295-91	CONDUCTOR, CHIP	
R327	1-216-295-91	CONDUCTOR, CHIP (KV-G25M11)		R561	1-249-421-11	CARBON 2.2K	5% 1/4W
R328	1-216-029-00	METAL GLAZE 150	5% 1/10W	R562	1-249-420-11	CARBON 1.8K	5% 1/4W F
R328	1-216-295-91	CONDUCTOR, CHIP (KV-G25M11)		R563	1-247-885-00	CARBON 180K	5% 1/4W
R328	1-216-295-91	CONDUCTOR, CHIP (KV-G25M11)		R564	1-216-091-00	METAL GLAZE 56K	5% 1/10W
R329	1-216-029-00	METAL GLAZE 150	5% 1/10W	R565	1-216-091-00	METAL GLAZE 56K	5% 1/10W
R329	1-216-295-91	CONDUCTOR, CHIP (KV-G25M11)		R566	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R330	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R569	1-247-883-00	CARBON 150K	5% 1/4W
R331	1-216-115-00	METAL GLAZE 560K	5% 1/10W	R570	1-216-295-91	CONDUCTOR, CHIP	
R332	1-216-033-00	METAL GLAZE 220	5% 1/10W	R571	1-216-033-00	METAL GLAZE 220	5% 1/10W
R333	1-216-077-00	METAL GLAZE 15K	5% 1/10W	R603	1-249-416-11	CARBON 820	5% 1/4W F
R335	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R604	1-249-416-11	CARBON 820	5% 1/4W F
R336	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R606	1-215-915-11	METAL OXIDE 470	5% 3W F
R338	1-216-295-91	CONDUCTOR, CHIP		R610	1-215-924-00	METAL OXIDE 15K	5% 3W F
R339	1-216-036-00	METAL GLAZE 300	5% 1/10W	R611	1-202-933-61	FUSIBLE 0.1	10% 1/2W F
R340	1-216-035-00	METAL GLAZE 270	5% 1/10W	R612	1-219-134-11	FUSIBLE 0.1	10% 1/4W (KV-G25M11)
R341	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R612	1-249-377-11	CARBON 0.47	5% 1/4W F (KV-G25M11)
R342	1-216-036-00	METAL GLAZE 300	5% 1/10W	R613	1-219-134-11	FUSIBLE 0.1	10% 1/4W (KV-G25M11)
R343	1-216-035-00	METAL GLAZE 270	5% 1/10W	R614	1-215-877-11	METAL OXIDE 22K	5% 1W F
			(KV-G25M11)	R615	1-249-389-11	CARBON 4.7	5% 1/4W



A

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R616	$\Delta$ 1-218-265-91	METAL	8.2M 5% 1W	R1206	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R617	1-215-924-00	METAL OXIDE	15K 5% 3W F	R1211	1-216-021-00	METAL GLAZE	68 5% 1/10W
R618	1-219-134-11	FUSIBLE	0.1 10% 1/4W	R1212	1-216-049-91	METAL GLAZE	1K 5% 1/10W
			(KV-G25M11)				
R619	1-219-134-11	FUSIBLE	0.1 10% 1/4W	R1215	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R620	1-202-962-11	WIREWOUND	3.3 5% 10W	R1216	1-216-113-00	METAL GLAZE	470K 5% 1/10W
				R1218	1-216-041-00	METAL GLAZE	470 5% 1/10W
R622	1-217-191-21	WIREWOUND	0.18 10% 2W F	R1219	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R623	1-247-807-31	CARBON	100 5% 1/4W	R1220	1-216-049-91	METAL GLAZE	1K 5% 1/10W
R624	1-215-881-11	METAL OXIDE	15 5% 2W F				
R625	1-249-424-11	CARBON	3.9K 5% 1/4W	R1221	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R626	1-249-420-11	CARBON	1.8K 5% 1/4W	R1227	1-216-689-11	METAL GLAZE	39K 5% 1/10W
				R1228	1-216-049-91	METAL GLAZE	1K 5% 1/10W
R627	1-249-417-11	CARBON	1K 5% 1/4W	R1229	1-216-041-00	METAL GLAZE	470 5% 1/10W
R628	1-249-417-11	CARBON	1K 5% 1/4W	R1230	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R629	1-249-401-11	CARBON	47 5% 1/4W				
R632	1-249-381-11	CARBON	1 5% 1/4W	R1231	1-216-049-91	METAL GLAZE	1K 5% 1/10W
R635	1-215-882-00	METAL OXIDE	22 5% 2W F	R1232	1-216-063-91	METAL GLAZE	3.9K 5% 1/10W
			(KV-G25M11)	R1233	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
				R1235	1-216-689-11	METAL GLAZE	39K 5% 1/10W
R636	1-215-924-00	METAL OXIDE	15K 5% 3W F	R1239	1-249-389-11	CARBON	4.7 5% 1/4W F
R801	1-215-920-11	METAL OXIDE	3.3K 5% 3W F				
R802	1-249-387-11	CARBON	3.3 5% 1/4W F	R1240	1-216-025-91	METAL GLAZE	100 5% 1/10W
R803	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R1241	1-216-049-91	METAL GLAZE	1K 5% 1/10W
R804	1-216-049-91	METAL GLAZE	1K 5% 1/10W	R1243	1-216-025-91	METAL GLAZE	100 5% 1/10W
				R1245	1-216-037-00	METAL GLAZE	330 5% 1/10W
R805	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1246	1-216-037-00	METAL GLAZE	330 5% 1/10W
R809	1-247-756-11	CARBON	2.2K 5% 1/2W F				
R811	1-216-346-00	METAL OXIDE	0.56 5% 1W F	R1247	1-216-041-00	METAL GLAZE	470 5% 1/10W
R812	1-216-075-00	METAL GLAZE	12K 5% 1/10W	R1248	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W
R816	1-249-437-11	CARBON	47K 5% 1/4W	R1249	1-216-041-00	METAL GLAZE	470 5% 1/10W
				R1250	1-216-119-00	METAL GLAZE	820K 5% 1/10W
R820	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R1251	1-216-119-00	METAL GLAZE	820K 5% 1/10W
R821	1-215-910-00	METAL OXIDE	68 5% 3W F				
R822	1-216-429-00	METAL OXIDE	270 5% 1W F	R1252	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R823	1-247-756-11	CARBON	2.2K 5% 1/2W F	R1253	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W
R825	1-249-392-11	CARBON	8.2 5% 1/4W F	R1255	1-216-073-00	METAL GLAZE	10K 5% 1/10W
				R1513	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R826	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	R1514	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R827	1-216-097-91	METAL GLAZE	100K 5% 1/10W				
R828	1-216-063-91	METAL GLAZE	3.9K 5% 1/10W	R1515	1-216-025-91	METAL GLAZE	100 5% 1/10W
R829	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W				
R831	1-215-861-00	METAL OXIDE	47 5% 1W F				
R832	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W				
R834	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R851	1-249-382-11	CARBON	1.2 5% 1/4W F				
R852	1-249-417-11	CARBON	1K 5% 1/4W F				
R853	1-249-377-11	CARBON	0.47 5% 1/4W F				
R854	1-249-377-11	CARBON	0.47 5% 1/4W F				
R855	1-202-818-00	SOLID	1K 20% 1/2W				
R856	1-249-431-11	CARBON	15K 5% 1/4W				
R857	1-249-438-11	CARBON	56K 5% 1/4W				
R858	1-216-370-11	METAL OXIDE	1.2 5% 2W F				
R860	1-247-887-00	CARBON	220K 5% 1/4W				
R881	1-216-043-91	METAL GLAZE	560 5% 1/10W				
R882	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W				
R883	1-216-121-91	METAL GLAZE	1M 5% 1/10W				
R895	1-216-348-00	METAL OXIDE	0.82 5% 1W F				
R898	1-249-421-11	CARBON	2.2K 5% 1/4W				
R902	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R904	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R905	1-216-049-91	METAL GLAZE	1K 5% 1/10W				
R906	1-216-049-91	METAL GLAZE	1K 5% 1/10W				
R907	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W				
R908	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W				
R909	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W				
R910	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W				
R911	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W				
R913	1-216-041-00	METAL GLAZE	470 5% 1/10W				
R914	1-216-041-00	METAL GLAZE	470 5% 1/10W				
R915	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W				
R1201	1-216-023-00	METAL GLAZE	82 5% 1/10W				
R1202	1-216-049-91	METAL GLAZE	1K 5% 1/10W				
R1203	1-216-089-91	METAL GLAZE	47K 5% 1/10W				
R1205	1-216-023-00	METAL GLAZE	82 5% 1/10W				

## &lt;SWITCH&gt;

S601  $\Delta$  1-571-433-31 SWITCH, PUSH (AC POWER)

S801 1-572-707-11 SWITCH, LEVER

S901 1-570-577-11 SWITCH, PUSH

S902 1-570-577-11 SWITCH, PUSH

S903 1-570-577-11 SWITCH, PUSH

S904 1-570-577-11 SWITCH, PUSH

S905 1-570-577-11 SWITCH, PUSH

## &lt;SPARK GAP&gt;

SG801 1-519-422-11 GAP, SPARK

## &lt;FILTER&gt;

SWF401 1-760-771-11 FILTER, SURFACE WAVE

## &lt;TRANSFORMER&gt;

T601  $\Delta$  1-429-139-21 TRANSFORMER, CONVERTER (SRT)T605  $\Delta$  1-424-461-11 TRANSFORMER, LINE FILTER

T801 1-437-195-11 TRANSFORMER, HORIZONTAL DRIVE

T851  $\Delta$  8-598-945-00 TRANSFORMER ASSY, FLYBACK

## &lt;THERMISTOR&gt;

THP601  $\Delta$  1-810-961-11 THERMISTOR, POSITIVE

## &lt;TUNER&gt;

TU101  $\Delta$  8-598-323-00 TUNER BT-AQ401

**A**

<u>REF. NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>REMARK</u>
		<CRYSTAL>	
X101	1-577-358-21	VIBRATOR, CERAMIC	
X300	1-411-752-11	COIL	
X358	1-567-505-11	OSCILLATOR, CRYSTAL	
X443	1-567-504-11	OSCILLATOR, CRYSTAL	